

off-label use of immunomodulatory biologics. As such, there remains a need for an effective treatment for these and related disorders.

[0006] All references cited herein, including patent applications, patent publications, and scientific literature, are herein incorporated by reference in their entirety, as if each individual reference were specifically and individually indicated to be incorporated by reference.

SUMMARY

[0007] To meet this and other needs, the present disclosure relates, *inter alia*, to methods of treating or preventing mast cell gastritis, mast cell esophagitis, mast cell enteritis, mast cell colitis, mast cell duodenitis, and/or mast cell gastroenteritis by administration of antibodies that bind to human Siglec-8 and/or compositions comprising said antibodies. These methods allow for treatment of individuals with one or more symptoms of esophagitis, gastritis, enteritis, duodenitis, and/or gastroenteritis that have elevated tissue mast cells (*e.g.*, and do not meet clinical criteria for eosinophilic esophagitis, gastritis, colitis, duodenitis, enteritis, and/or gastroenteritis).

[0008] Accordingly, certain examples of the present disclosure relate to methods for treating or preventing one or more symptoms of gastritis, enteritis, duodenitis, or gastroenteritis in an individual, comprising: (a) detecting number of mast cells from a first sample obtained from gastric, duodenal, jejunal, ileal, or colonic mucosa of the individual; (b) detecting number of eosinophils from a second sample obtained from gastric, duodenal, jejunal, ileal, or colonic mucosa of the individual; and (c) if the first sample has an increased number of mast cells as compared to a mast cell reference and the second sample does not have increased number of eosinophils as compared to an eosinophil reference, administering to the individual an effective amount of a composition comprising an antibody that binds to human Siglec-8. Other examples of the present disclosure relate to methods for treating or preventing mast cell gastritis, mast cell enteritis, mast cell duodenitis, or mast cell gastroenteritis in an individual, comprising: (a) detecting number of mast cells from a first sample obtained from gastric, duodenal, jejunal, ileal, or colonic mucosa of the individual; (b) detecting number of eosinophils from a second sample obtained from gastric, duodenal, jejunal, ileal, or colonic mucosa of the individual; and (c) if the first sample has an increased number of mast cells as compared to a mast cell reference and the second sample does not have increased number of eosinophils as compared to an eosinophil reference, administering to the individual an effective amount of a composition comprising an antibody that binds to human Siglec-8. Other examples of the present disclosure relate to methods

for treating an individual having one or more symptoms of gastritis, enteritis, duodenitis, or gastroenteritis, comprising: (a) detecting number of mast cells from a first sample obtained from gastric, duodenal, jejunal, ileal, or colonic mucosa of the individual; (b) detecting number of eosinophils from a second sample obtained from gastric, duodenal, jejunal, ileal, or colonic mucosa of the individual; and (c) if the first sample has an increased number of mast cells as compared to a mast cell reference and the second sample does not have increased number of eosinophils as compared to an eosinophil reference, administering to the individual an effective amount of a composition comprising an antibody that binds to human Siglec-8.

[0008a] In one aspect, the present disclosure refers to use of a composition comprising an antibody that binds to human Siglec-8 in the manufacture of a medicament for treating or preventing one or more symptoms of gastritis, enteritis, duodenitis, or gastroenteritis in an individual, wherein the use comprises: (a) detecting number of mast cells from a first sample obtained from gastric, duodenal, jejunal, ileal, or colonic mucosa of the individual; (b) detecting number of eosinophils from a second sample obtained from gastric, duodenal, jejunal, ileal, or colonic mucosa of the individual; and (c) if the first sample has an increased number of mast cells as compared to a mast cell reference and the second sample does not have increased number of eosinophils as compared to an eosinophil reference, an effective amount of the medicament is to be administered to the individual.

[0009] Other examples of the present disclosure relate to methods for treating or preventing one or more symptoms of gastritis, enteritis, duodenitis, or gastroenteritis in an individual comprising administering to the individual an effective amount of a composition comprising an antibody that binds to human Siglec-8, wherein the individual has an increased number of mast cells in at least a portion of the gastric, duodenal, jejunal, ileal, or colonic mucosa as compared to a mast cell reference, and wherein the individual does not have increased number of eosinophils in at least a portion of the gastric, duodenal, jejunal, ileal, or colonic mucosa as compared to an eosinophil reference. Other examples of the present disclosure relate to methods for treating or preventing mast cell gastritis, mast cell enteritis, mast cell duodenitis, or mast cell gastroenteritis in an individual comprising administering to the individual an effective amount of a composition comprising an antibody that binds to human Siglec-8, wherein the individual has an increased number of mast cells in at least a portion of the gastric, duodenal, jejunal, ileal, or colonic mucosa as compared to a mast cell reference, and wherein the individual does not have increased number of eosinophils in at least a portion of the gastric, duodenal, jejunal, ileal, or colonic mucosa as compared to an eosinophil reference. Other examples of the present disclosure relate to methods for treating an individual having one or more symptoms of gastritis, enteritis, duodenitis, or gastroenteritis comprising administering to the individual an effective amount of a composition comprising an antibody that binds to human Siglec-8, wherein the individual has an increased number of mast cells in at least a portion of the gastric, duodenal, jejunal, ileal, or colonic mucosa as compared to a mast cell reference, and wherein the individual does not have increased number of eosinophils in at least a portion of the gastric, duodenal, jejunal, ileal, or colonic mucosa as compared to an eosinophil reference. In some examples, a first sample obtained from the gastric, duodenal, jejunal, ileal, or colonic mucosa of the individual has an increased number of mast cells as compared to the mast cell reference. In some examples, a

second sample obtained from the gastric, duodenal, jejunal, ileal, or colonic mucosa of the individual does not have increased number of eosinophils as compared to the eosinophil reference.

[0009a] In one aspect, the present disclosure refers to use of a composition comprising an antibody that binds to human Siglec-8 in the manufacture of a medicament for treating or preventing one or more symptoms of gastritis, enteritis, duodenitis, or gastroenteritis in an individual, wherein the individual has an increased number of mast cells in at least a portion of the gastric, duodenal, jejunal, ileal, or colonic mucosa as compared to a mast cell reference, and wherein the individual does not have increased number of eosinophils in at least a portion of the gastric, duodenal, jejunal, ileal, or colonic mucosa as compared to an eosinophil reference.

[0010] In some examples that may be combined with any other examples described herein, the first and the second samples are the same. In some examples, the first and the second samples are from the same type of tissue. In some examples, one or both of the first and second samples is/are from a gastric or duodenal biopsy. In some examples, one or both of the first and second samples is/are from an esophago-gastro-duodenoscopy (EGD) with biopsy. In some examples, the first sample has at least three high-power fields (HPFs) that each have a mast cell count of 30 or more mast cells per HPF. In some examples, the first sample has at least three high-power fields (HPFs) that each have a mast cell count of 25 or more mast cells per HPF. In some examples, the first sample has at least three high-power fields (HPFs) that each have a mast cell count of 20 or more mast cells per HPF. In some examples, the first sample has at least two high-power fields (HPFs) that each have a mast cell count of 30 or more mast cells per HPF. In some examples, the first sample has at least two high-power fields (HPFs) that each have a mast cell count of 25 or more mast cells per HPF. In some examples, the first sample has at least two high-power fields (HPFs) that each have a mast cell count of 20 or more mast cells per HPF. In some examples, the first sample has at least one high-power field (HPF) that has a mast cell count of 30 or more mast cells. In some examples, the first sample has at least one high-power field (HPF) that has a mast cell count of 25 or more mast cells. In some examples, the first sample has at least one high-power field (HPF) that has a mast cell count of 20 or more mast cells. In some examples, mast cells are detected by immunohistochemical (IHC) staining for tryptase, CD117 (c-kit), or IgE receptor. In some examples, the second sample has one or more HPFs that each have an eosinophil count of less than 30 eosinophils per HPF. In some examples, the second sample is obtained from the gastric mucosa of the individual, and the second sample does not have at least five HPFs that each have an eosinophil count of 30 or more eosinophils per HPF. In some examples, the second sample is obtained from the duodenal mucosa of the individual, and the second sample does not have at least three HPFs that each have an eosinophil count of 30 or more eosinophils per HPF. In some examples, the number of mast cells in the first sample is detected 45 days or less prior to administration of the composition.

[0011] In some examples according to any of the examples described herein, the individual has, or has been diagnosed with, gastroesophageal reflux disease (GERD) (*e.g.*, prior to treatment with an anti-Siglec-8 antibody). In some examples, the individual is refractory to antacids, H2 blockers, and/or proton pump inhibitors. In some examples, the individual has, or has been diagnosed with, irritable bowel syndrome (IBS) (*e.g.*, prior to treatment with an anti-Siglec-8 antibody). In some examples, the individual has, or has been diagnosed with, functional dyspepsia (*e.g.*, prior to treatment with an anti-Siglec-8 antibody). In some examples, the individual has, or has been diagnosed with, one or more of: abdominal pain, abdominal cramping, nausea, vomiting, diarrhea, bloating, and early satiety without identifiable cause (*e.g.*, prior to treatment with an anti-Siglec-8 antibody). In some examples, the individual is refractory and/or unresponsive to pharmacologic and/or dietary intervention. In some examples, the individual previously had (*e.g.*, prior to treatment with an anti-Siglec-8 antibody), or was diagnosed with (*e.g.*, has a previous history of), eosinophilic gastritis but is currently symptomatic without elevated eosinophils. In some examples, the individual has had (*e.g.*, prior to treatment with an anti-Siglec-8 antibody), or has previously been diagnosed with (*e.g.*, prior to treatment with an anti-Siglec-8 antibody), eosinophilic gastritis, and the individual has one or more symptoms of eosinophilic gastritis without elevated eosinophils. In some examples, the individual previously had (*e.g.*, prior to treatment with an anti-Siglec-8 antibody), or was diagnosed with (*e.g.*, has a previous history of), eosinophilic gastroenteritis but is currently symptomatic without elevated eosinophils. In some examples, the individual has had (*e.g.*, prior to treatment with an anti-Siglec-8 antibody), or has previously been diagnosed with (*e.g.*, prior to treatment with an anti-Siglec-8 antibody), eosinophilic gastroenteritis, and the individual has one or more symptoms of eosinophilic gastroenteritis without elevated eosinophils. In some examples, the individual has had (*e.g.*, prior to treatment with an anti-Siglec-8 antibody), or has previously been diagnosed with (*e.g.*, prior to treatment with an anti-Siglec-8 antibody), eosinophilic enteritis, and the individual has one or more symptoms of eosinophilic enteritis without elevated eosinophils. In some examples, the individual has had (*e.g.*, prior to treatment with an anti-Siglec-8 antibody), or has previously been diagnosed with (*e.g.*, prior to treatment with an anti-Siglec-8 antibody), eosinophilic duodenitis, and the individual has one or more symptoms of eosinophilic duodenitis without elevated eosinophils. In some examples, the individual has, or has been diagnosed with, functional dyspepsia (*e.g.*, prior to treatment with an anti-Siglec-8 antibody). In some examples, one or both of a

number or activity of mast cells in a sample obtained from the gastric, duodenal, jejunal, ileal, or colonic mucosa of the individual are reduced after administration of the composition as compared to a baseline level before administration of the composition. In some examples, prior to administration of the composition, the individual has failed or is not adequately controlled by one or more standard-of-care treatments for gastritis or gastroenteritis. In some examples, the one or more standard-of-care treatments for gastritis or gastroenteritis are selected from the group consisting of proton pump inhibitor (PPI) treatment, corticosteroid treatment, and dietary treatment. In some examples, one or more symptom(s) of gastritis or gastroenteritis in the individual are reduced after administration of the composition as compared to a baseline level before administration of the composition. In some examples, one or more symptom(s) of gastritis, duodenitis, enteritis, or gastroenteritis in the individual are reduced by at least 50%, at least 55%, at least 60%, or at least 65% after administration of the composition as compared to a baseline level before administration of the composition. In some examples, one or more of abdominal pain, nausea, vomiting, loss of appetite, abdominal cramping, fullness before finishing a meal, bloating, diarrhea, and liquid or watery stools in the individual are reduced after administration of the composition as compared to a baseline level before administration of the composition.

[0012] Other examples of the present disclosure relate to methods for treating or preventing one or more symptoms of esophagitis in an individual, comprising: (a) detecting number of mast cells from a first sample obtained from esophageal mucosa of the individual; (b) detecting number of eosinophils from a second sample obtained from the esophageal mucosa of the individual; and (c) if the first sample has an increased number of mast cells as compared to a mast cell reference and the second sample does not have increased number of eosinophils as compared to an eosinophil reference, administering to the individual an effective amount of a composition comprising an antibody that binds to human Siglec-8. Other examples of the present disclosure relate to methods for treating or preventing mast cell esophagitis in an individual, comprising: (a) detecting number of mast cells from a first sample obtained from esophageal mucosa of the individual; (b) detecting number of eosinophils from a second sample obtained from the esophageal mucosa of the individual; and (c) if the first sample has an increased number of mast cells as compared to a mast cell reference and the second sample does not have increased number of eosinophils as compared to an eosinophil reference, administering to the individual an effective amount of a composition comprising an antibody that binds to human

Siglec-8. Other examples of the present disclosure relate to methods for treating an individual having one or more symptoms of esophagitis, comprising: (a) detecting number of mast cells from a first sample obtained from esophageal mucosa of the individual; (b) detecting number of eosinophils from a second sample obtained from the esophageal mucosa of the individual; and (c) if the first sample has an increased number of mast cells as compared to a mast cell reference and the second sample does not have increased number of eosinophils as compared to an eosinophil reference, administering to the individual an effective amount of a composition comprising an antibody that binds to human Siglec-8.

[0012a] In one aspect, the present disclosure refers to use of a composition comprising an antibody that binds to human Siglec-8 in the manufacture of a medicament for treating or preventing one or more symptoms of esophagitis in an individual, wherein the use comprises: (a) detecting number of mast cells from a first sample obtained from esophageal mucosa of the individual; (b) detecting number of eosinophils from a second sample obtained from the esophageal mucosa of the individual; and (c) if the first sample has an increased number of mast cells as compared to a mast cell reference and the second sample does not have increased number of eosinophils as compared to an eosinophil reference, an effective amount of the medicament is to be administered to the individual.

[0013] Other examples of the present disclosure relate to methods for treating or preventing one or more symptoms of esophagitis in an individual comprising administering to the individual an effective amount of a composition comprising an antibody that binds to human Siglec-8, wherein the individual has an increased number of mast cells in at least a portion of the esophageal mucosa as compared to a mast cell reference, and wherein the individual does not have increased number of eosinophils in at least a portion of the esophageal mucosa as compared to an eosinophil reference. Other examples of the present disclosure relate to methods for treating or preventing mast cell esophagitis in an individual comprising administering to the individual an effective amount of a composition comprising an antibody that binds to human Siglec-8, wherein the individual has an increased number of mast cells in at least a portion of the esophageal mucosa as compared to a mast cell reference, and wherein the individual does not have increased number of eosinophils in at least a portion of the esophageal mucosa as compared to an eosinophil reference. Other examples of the present disclosure relate to methods for treating an individual having one or more symptoms of esophagitis comprising administering to the individual an effective amount of a composition comprising an antibody that binds to human Siglec-8, wherein the individual has an increased number of mast cells in at least a portion of the esophageal mucosa as compared to a mast cell reference, and wherein the individual does not have increased number of eosinophils in at least a portion of the esophageal mucosa as compared to an eosinophil reference. In some examples, a first sample obtained from the esophageal mucosa of the individual has an increased number of mast cells as compared to the mast cell reference. In some examples, a second sample obtained from the esophageal mucosa of the individual does not have increased number of eosinophils as compared to the eosinophil reference.

[0013a] In one aspect, the present disclosure refers to use of a composition comprising an antibody that binds to human Siglec-8 in the manufacture of a medicament for treating or preventing one or more symptoms of esophagitis in an individual, wherein the individual has an increased number of mast cells in at least a portion of the esophageal mucosa as compared to a mast cell reference, and wherein the individual does not have increased number of eosinophils in at least a portion of the esophageal mucosa as compared to an eosinophil reference.

[0014] In some examples, the first and the second samples are the same. In some examples, one or both of the first and second samples is/are from an esophageal biopsy sample. In some examples, one or both of the first and second samples is/are from an esophago-gastro-duodenoscopy (EGD) with biopsy. In some examples, the first sample has at least one high-power field (HPF) with a mast cell count of 10 or more mast cells per HPF. In some examples, the first sample has at least one high-power field (HPF) with a mast cell count of 15 or more mast cells per HPF. In some examples, mast cells are detected by immunohistochemical (IHC) staining for tryptase, CD117 (c-kit), or IgE receptor. In some examples, the second sample has one or more HPFs with an eosinophil count of less than 10 eosinophils per HPF. In some examples, the second sample does not have an HPF with an eosinophil count of 10 or more eosinophils per HPF. In some examples, the second sample has one or more HPFs with an eosinophil count of less than 15 eosinophils per HPF. In some examples, the second sample does not have an HPF with an eosinophil count of 15 or more eosinophils per HPF.

[0015] In some examples, one or more of a number, activity, or location of mast cells in a sample obtained from the esophageal mucosa of the individual is reduced after administration of the composition as compared to a baseline level before administration of the composition. In some examples, prior to administration of the composition, the individual has failed or is not adequately controlled by one or more standard-of-care treatments for esophagitis. In some examples, the one or more symptom(s) of esophagitis in the individual are reduced after administration of the composition as compared to a baseline level before administration of the composition. In some examples, the one or more symptom(s) of esophagitis in the individual are reduced by at least 50%, at least 55%, at least 60%, or at least 65% after administration of the composition as compared to a baseline level before administration of the composition. In some examples, one or more of heartburn, nausea, dysphagia/difficulty swallowing, vomiting, abdominal pain, cough, food impaction, early satiety, loss of appetite, chest pain, feeding intolerance or refusal, and gastroesophageal reflux in the individual are reduced after administration of the composition as compared to a baseline level before administration of the composition.

[0016] Other examples of the present disclosure relate to methods for treating or preventing one or more symptoms of colitis (*e.g.*, ulcerative colitis) in an individual, comprising: (a) detecting number of mast cells from a first sample obtained from colonic mucosa of the individual; (b)

detecting number of eosinophils from a second sample obtained from the colonic mucosa of the individual; and (c) if the first sample has an increased number of mast cells as compared to a mast cell reference and the second sample does not have increased number of eosinophils as compared to an eosinophil reference, administering to the individual an effective amount of a composition comprising an antibody that binds to human Siglec-8. Other examples of the present disclosure relate to methods for treating or preventing mast cell colitis (*e.g.*, ulcerative colitis) in an individual, comprising: (a) detecting number of mast cells from a first sample obtained from colonic mucosa of the individual; (b) detecting number of eosinophils from a second sample obtained from the colonic mucosa of the individual; and (c) if the first sample has an increased number of mast cells as compared to a mast cell reference and the second sample does not have increased number of eosinophils as compared to an eosinophil reference, administering to the individual an effective amount of a composition comprising an antibody that binds to human Siglec-8. Other examples of the present disclosure relate to methods for treating an individual having one or more symptoms of colitis (*e.g.*, ulcerative colitis), comprising: (a) detecting number of mast cells from a first sample obtained from colonic mucosa of the individual; (b) detecting number of eosinophils from a second sample obtained from the colonic mucosa of the individual; and (c) if the first sample has an increased number of mast cells as compared to a mast cell reference and the second sample does not have increased number of eosinophils as compared to an eosinophil reference, administering to the individual an effective amount of a composition comprising an antibody that binds to human Siglec-8.

[0016a] In one aspect, the present disclosure refers to use of a composition comprising an antibody that binds to human Siglec-8 in the manufacture of a medicament for treating or preventing one or more symptoms of colitis in an individual, wherein the use comprises: (a) detecting number of mast cells from a first sample obtained from colonic mucosa of the individual; (b) detecting number of eosinophils from a second sample obtained from colonic mucosa of the individual; and (c) if the first sample has an increased number of mast cells as compared to a mast cell reference and the second sample does not have increased number of eosinophils as compared to an eosinophil reference, an effective amount of the medicament is to be administered to the individual.

[0017] Other examples of the present disclosure relate to methods for treating or preventing one or more symptoms of colitis (*e.g.*, ulcerative colitis) in an individual comprising administering to the individual an effective amount of a composition comprising an antibody that binds to human Siglec-8, wherein the individual has an increased number of mast cells in at least a portion of the colonic mucosa as compared to a mast cell reference, and wherein the individual does not have increased number of eosinophils in at least a portion of the colonic mucosa as compared to an eosinophil reference. Other examples of the present disclosure relate to methods for treating or preventing mast cell colitis (*e.g.*, ulcerative colitis) in an individual comprising administering to the individual an effective amount of a composition comprising an antibody that binds to human Siglec-8, wherein the individual has an increased number of mast cells in at least a portion of the colonic mucosa as compared to a mast cell reference, and wherein the individual does not have increased number of eosinophils in at least a portion of the colonic mucosa as compared to an

eosinophil reference. Other examples of the present disclosure relate to methods for treating an individual having one or more symptoms of colitis (*e.g.*, ulcerative colitis) comprising administering to the individual an effective amount of a composition comprising an antibody that binds to human Siglec-8, wherein the individual has an increased number of mast cells in at least a portion of the colonic mucosa as compared to a mast cell reference, and wherein the individual does not have increased number of eosinophils in at least a portion of the colonic mucosa as compared to an eosinophil reference. In some examples, a first sample obtained from the colonic mucosa of the individual has an increased number of mast cells as compared to the mast cell reference. In some examples, a second sample obtained from the colonic mucosa of the individual does not have increased number of eosinophils as compared to the eosinophil reference.

[0017a] In one aspect, the present disclosure refers to use of a composition comprising an antibody that binds to human Siglec-8 in the manufacture of a medicament for treating or preventing one or more symptoms of colitis in an individual, wherein the individual has an increased number of mast cells in at least a portion of the colonic mucosa as compared to a mast cell reference, and wherein the individual does not have increased number of eosinophils in at least a portion of the colonic mucosa as compared to an eosinophil reference.

[0018] In some examples, the first sample has at least one high-power field (HPF) with a mast cell count of 20 or more, 25 or more, 30 or more, or 20-30 mast cells per HPF. In some examples, the second sample has one or more HPFs with an eosinophil count of less than 60 eosinophils per HPF. In some examples, the second sample does not have one or more HPFs with an eosinophil count of greater than 60 eosinophils per HPF. In some examples, the first and the second samples are the same. In some examples, mast cells are detected by immunohistochemical (IHC) staining for tryptase, CD117, or IgE receptor. In some examples, the number of mast cells in the first sample is detected 45 days or less prior to administration of the composition. In some examples, the individual has had, or has previously been diagnosed with, eosinophilic colitis, and the individual has one or more symptoms of eosinophilic colitis without elevated eosinophils. In some examples, one or both of a number or activity of mast cells in a sample obtained from the colonic mucosa of the individual are reduced after administration of the composition as compared to a baseline level before administration of the composition. In some examples, prior to administration of the composition, the individual has failed or is not adequately controlled by one or more standard-of-care treatments for colitis. In some examples, the one or more symptom(s) of colitis in the individual are reduced after administration of the composition as compared to a baseline level before administration of the composition. In some examples, the one or more symptom(s) of colitis in the individual are reduced by at least 50%, at least 55%, at least 60%, or at least 65% after administration of the composition as compared to a baseline level before administration of the composition.

[0019] In some examples that may be combined with any other examples described herein, the composition is administered by intravenous infusion. In some examples, the composition is administered by intravenous infusion once a month for 3 or more months, every 4 weeks, or every 28 days. In some examples, the composition is administered by intravenous infusion once per cycle for 1, 2, 3, 4, 5, or 6 cycles, wherein each cycle is 1 month, 4 weeks, or 28 days. In some examples, the composition is administered by subcutaneous injection. In some examples, the composition is administered by intravenous infusion at one or more doses comprising between about 0.3 mg/kg and about 3.0 mg/kg of the antibody. In some examples, the method comprises administering to the individual a first dose comprising about 0.3 mg/kg of the antibody, a second dose comprising about 1.0 mg/kg of the antibody, and a third dose comprising about 3.0 mg/kg of the antibody. In some examples, the method comprises administering to the individual a first dose comprising about 0.3 mg/kg of the antibody on Day 1, a second dose comprising about 1.0 mg/kg of the antibody between Day 26 and Day 32, a third dose comprising about 3.0 mg/kg of the antibody between Day 54 and Day 60, a fourth dose comprising about 3.0 mg/kg of the antibody between Day 82 and Day 88, a fifth dose comprising about 3.0 mg/kg of the antibody between Day 110 and Day 116, and a sixth dose comprising about 3.0 mg/kg of the antibody between Day 138 and Day 144.

[0020] In some examples that may be combined with any other examples described herein, the antibody comprises a Fc region and N-glycoside-linked carbohydrate chains linked to the Fc region, wherein less than 50% of the N-glycoside-linked carbohydrate chains of the antibody in the composition contain a fucose residue. In some examples, substantially none of the N-glycoside-linked carbohydrate chains of the antibody in the composition contain a fucose residue. In some examples, the antibody comprises a heavy chain variable region and a light chain variable region, wherein the heavy chain variable region comprises (i) HVR-H1 comprising the amino acid sequence of SEQ ID NO:61, (ii) HVR-H2 comprising the amino acid sequence of SEQ ID NO:62, and (iii) HVR-H3 comprising the amino acid sequence of SEQ ID NO:63; and/or wherein the light chain variable region comprises (i) HVR-L1 comprising the amino acid sequence of SEQ ID NO:64, (ii) HVR-L2 comprising the amino acid sequence of SEQ ID NO:65, and (iii) HVR-L3 comprising the amino acid sequence of SEQ ID NO:66. In some examples, the antibody comprises a heavy chain variable region and a light chain variable region, wherein the heavy chain variable region comprises (i) HVR-H1 comprising the amino acid sequence of SEQ ID NO:61, (ii) HVR-H2 comprising the amino acid sequence of

SEQ ID NO:62, and (iii) HVR-H3 comprising the amino acid sequence selected from SEQ ID NOs:67-70; and/or wherein the light chain variable region comprises (i) HVR-L1 comprising the amino acid sequence of SEQ ID NO:64, (ii) HVR-L2 comprising the amino acid sequence of SEQ ID NO:65, and (iii) HVR-L3 comprising the amino acid sequence of SEQ ID NO:71. In some examples, the antibody comprises a heavy chain variable region comprising the amino acid sequence of SEQ ID NO:6; and/or a light chain variable region comprising the amino acid sequence selected from SEQ ID NO:16 or 21. In some examples, the antibody comprises a heavy chain variable region comprising the amino acid sequence selected from SEQ ID NOs:11-14; and/or a light chain variable region comprising the amino acid sequence selected from SEQ ID NOs:23-24. In some examples, the antibody comprises a heavy chain variable region comprising the amino acid sequence selected from SEQ ID NOs:2-14; and/or a light chain variable region comprising the amino acid sequence selected from SEQ ID NOs:16-24. In some examples, the antibody comprises a heavy chain variable region comprising the amino acid sequence selected from SEQ ID NOs:2-10; and/or a light chain variable region comprising the amino acid sequence selected from SEQ ID NOs:16-22. In some examples, the antibody comprises: (a) heavy chain variable region comprising: (1) an HC-FR1 comprising the amino acid sequence selected from SEQ ID NOs:26-29; (2) an HVR-H1 comprising the amino acid sequence of SEQ ID NO:61; (3) an HC-FR2 comprising the amino acid sequence selected from SEQ ID NOs:31-36; (4) an HVR-H2 comprising the amino acid sequence of SEQ ID NO:62; (5) an HC-FR3 comprising the amino acid sequence selected from SEQ ID NOs:38-43; (6) an HVR-H3 comprising the amino acid sequence of SEQ ID NO:63; and (7) an HC-FR4 comprising the amino acid sequence selected from SEQ ID NOs:45-46, and/or (b) a light chain variable region comprising: (1) an LC-FR1 comprising the amino acid sequence selected from SEQ ID NOs:48-49; (2) an HVR-L1 comprising the amino acid sequence of SEQ ID NO:64; (3) an LC-FR2 comprising the amino acid sequence selected from SEQ ID NOs:51-53; (4) an HVR-L2 comprising the amino acid sequence of SEQ ID NO:65; (5) an LC-FR3 comprising the amino acid sequence selected from SEQ ID NOs:55-58; (6) an HVR-L3 comprising the amino acid sequence of SEQ ID NO:66; and (7) an LC-FR4 comprising the amino acid sequence of SEQ ID NO:60. In some examples, the antibody comprises: (a) heavy chain variable region comprising: (1) an HC-FR1 comprising the amino acid sequence of SEQ ID NO:26; (2) an HVR-H1 comprising the amino acid sequence of SEQ ID NO:61; (3) an HC-FR2 comprising the amino acid sequence of SEQ ID NO:34; (4) an HVR-H2 comprising the amino acid sequence of

SEQ ID NO:62; (5) an HC-FR3 comprising the amino acid sequence of SEQ ID NO:38; (6) an HVR-H3 comprising the amino acid sequence of SEQ ID NO:63; and (7) an HC-FR4 comprising the amino acid sequence of SEQ ID NO:45; and/or (b) a light chain variable region comprising: (1) an LC-FR1 comprising the amino acid sequence of SEQ ID NO:48; (2) an HVR-L1 comprising the amino acid sequence of SEQ ID NO:64; (3) an LC-FR2 comprising the amino acid sequence of SEQ ID NO:51; (4) an HVR-L2 comprising the amino acid sequence of SEQ ID NO:65; (5) an LC-FR3 comprising the amino acid sequence of SEQ ID NO:55; (6) an HVR-L3 comprising the amino acid sequence of SEQ ID NO:66; and (7) an LC-FR4 comprising the amino acid sequence of SEQ ID NO:60. In some examples, the antibody comprises: (a) heavy chain variable region comprising: (1) an HC-FR1 comprising the amino acid sequence of SEQ ID NO:26; (2) an HVR-H1 comprising the amino acid sequence of SEQ ID NO:61; (3) an HC-FR2 comprising the amino acid sequence of SEQ ID NO:34; (4) an HVR-H2 comprising the amino acid sequence of SEQ ID NO:62; (5) an HC-FR3 comprising the amino acid sequence of SEQ ID NO:38; (6) an HVR-H3 comprising the amino acid sequence of SEQ ID NO:63; and (7) an HC-FR4 comprising the amino acid sequence of SEQ ID NO:45; and/or (b) a light chain variable region comprising: (1) an LC-FR1 comprising the amino acid sequence of SEQ ID NO:48; (2) an HVR-L1 comprising the amino acid sequence of SEQ ID NO:64; (3) an LC-FR2 comprising the amino acid sequence of SEQ ID NO:51; (4) an HVR-L2 comprising the amino acid sequence of SEQ ID NO:65; (5) an LC-FR3 comprising the amino acid sequence of SEQ ID NO:58; (6) an HVR-L3 comprising the amino acid sequence of SEQ ID NO:66; and (7) an LC-FR4 comprising the amino acid sequence of SEQ ID NO:60. In some examples, the antibody comprises: a heavy chain variable region comprising (i) HVR-H1 comprising the amino acid sequence of SEQ ID NO:88, (ii) HVR-H2 comprising the amino acid sequence of SEQ ID NO:91, and (iii) HVR-H3 comprising the amino acid sequence of SEQ ID NO:94; and/or a light chain variable region comprising (i) HVR-L1 comprising the amino acid sequence of SEQ ID NO:97, (ii) HVR-L2 comprising the amino acid sequence of SEQ ID NO:100, and (iii) HVR-L3 comprising the amino acid sequence of SEQ ID NO:103; a heavy chain variable region comprising (i) HVR-H1 comprising the amino acid sequence of SEQ ID NO:89, (ii) HVR-H2 comprising the amino acid sequence of SEQ ID NO:92, and (iii) HVR-H3 comprising the amino acid sequence of SEQ ID NO:95; and/or a light chain variable region comprising (i) HVR-L1 comprising the amino acid sequence of SEQ ID NO:98, (ii) HVR-L2 comprising the amino acid sequence of SEQ ID NO:101, and (iii) HVR-L3 comprising the amino acid sequence

of SEQ ID NO:104; or a heavy chain variable region comprising (i) HVR-H1 comprising the amino acid sequence of SEQ ID NO:90, (ii) HVR-H2 comprising the amino acid sequence of SEQ ID NO:93, and (iii) HVR-H3 comprising the amino acid sequence of SEQ ID NO:96; and/or a light chain variable region comprising (i) HVR-L1 comprising the amino acid sequence of SEQ ID NO:99, (ii) HVR-L2 comprising the amino acid sequence of SEQ ID NO:102, and (iii) HVR-L3 comprising the amino acid sequence of SEQ ID NO:105. In some examples, the antibody comprises: a heavy chain variable region comprising the amino acid sequence of SEQ ID NO:106; and/or a light chain variable region comprising the amino acid sequence of SEQ ID NO:109; a heavy chain variable region comprising the amino acid sequence of SEQ ID NO:107; and/or a light chain variable region comprising the amino acid sequence of SEQ ID NO:110; or a heavy chain variable region comprising the amino acid sequence of SEQ ID NO:108; and/or a light chain variable region comprising the amino acid sequence of SEQ ID NO:111. In some examples, the antibody binds to a human Siglec-8 and a non-human primate Siglec-8. In some examples, the non-human primate is a baboon. In some examples, the antibody binds to an epitope in Domain 1 of human Siglec-8, wherein Domain 1 comprises the amino acid sequence of SEQ ID NO:112. In some examples, the antibody binds to an epitope in Domain 3 of human Siglec-8, wherein Domain 3 comprises the amino acid sequence of SEQ ID NO:114. In some examples, the antibody binds to the same epitope as antibody 4F11. In some examples, the antibody binds to an epitope in Domain 2 or Domain 3 of human Siglec-8. In some examples, Domain 2 comprises the amino acid sequence of SEQ ID NO:113. In some examples, the antibody binds to the same epitope as antibody 1C3. In some examples, Domain 3 comprises the amino acid sequence of SEQ ID NO:114. In some examples, the antibody binds to the same epitope as antibody 1H10. In some examples, the antibody binds to an epitope in Domain 1 of human Siglec-8 and competes with antibody 4F11 for binding to Siglec-8. In some examples, the antibody does not compete with antibody 2E2 for binding to Siglec-8. In some examples, the antibody is not antibody 2E2. In some examples, Domain 1 comprises the amino acid sequence of SEQ ID NO:112. In some examples, the antibody is a human antibody, a humanized antibody, or a chimeric antibody. In some examples, the antibody comprises a heavy chain Fc region comprising a human IgG Fc region. In some examples, the human IgG Fc region comprises a human IgG1 Fc region. In some examples, the human IgG1 Fc region is non-fucosylated. In some examples, the human IgG Fc region comprises a human IgG4 Fc region. In some

examples, the human IgG4 Fc region comprises the amino acid substitution S228P, wherein the amino acid residues are numbered according to the EU index as in Kabat. In some examples, the antibody depletes blood eosinophils and/or inhibits mast cell activation. In some examples, the antibody has been engineered to improve antibody-dependent cell-mediated cytotoxicity (ADCC) activity. In some examples, the antibody comprises at least one amino acid substitution in the Fc region that improves ADCC activity. In some examples, at least one or two of the heavy chains of the antibody is non-fucosylated. In some examples, the antibody comprises a heavy chain comprising the amino acid sequence of SEQ ID NO:75; and/or a light chain comprising the amino acid sequence selected from SEQ ID NO:76 or 77. In some examples, the antibody is a monoclonal antibody.

[0021] In some examples that may be combined with any other examples described herein, the composition is administered in combination with one or more additional therapeutic agent(s) for treating or preventing gastritis, gastroenteritis, or esophagitis. In some examples, the one or more additional therapeutic agent(s) for treating or preventing gastritis, gastroenteritis, or esophagitis are selected from the group consisting of PPIs, systemic corticosteroids, topical corticosteroids, antihistamines, mast cell stabilizers, H-2 blockers, anti-IgE antibodies, calcineurin inhibitors, immunomodulatory agents, and immunosuppressive agents. In some examples, the individual is a human. In some examples, the composition is a pharmaceutical composition comprising the antibody and a pharmaceutically acceptable carrier.

[0022] Other examples of the present disclosure relate to articles of manufacture or kits comprising a medicament comprising a composition comprising an antibody that binds to human Siglec-8 and a package insert comprising instructions for administration of the medicament in an individual in need thereof according to any one of the above examples. Other examples of the present disclosure relate to articles of manufacture or kits comprising a medicament comprising an antibody that binds to human Siglec-8 and a package insert comprising instructions for administration of the medicament in an individual in need thereof according to any one of the above examples.

[0022a] In one aspect, the present disclosure refers to an article of manufacture comprising a medicament comprising a composition comprising an antibody that binds to human Siglec-8 and a package insert comprising instructions for administration of the medicament in an individual in need thereof as disclosed herein.

[0023] It is to be understood that one, some, or all of the properties of the various examples described herein may be combined to form other examples of the present disclosure. These and other examples of the present disclosure will become apparent to one of skill

in the art. These and other examples of the present disclosure are further described by the detailed description that follows.

BRIEF DESCRIPTION OF THE DRAWINGS

[0024] FIG. 1 provides a schematic diagram illustrating the pathogenesis of eosinophilic gastrointestinal diseases (EGIDs).

[0025] FIGS. 2A & 2B show the distribution (**FIG. 2A**) and baseline characteristics (**FIG. 2B**) of symptomatic patients with suspected EG/EE who did not meet histopathologic entry criteria for mucosal eosinophilia for a Phase 2 study of anti-Siglec-8 antibody in patients with EG/EE. In **FIG. 2B**, ^a = medical history at screening of asthma, rhinitis, food allergy, atopic dermatitis, seasonal allergy, environmental allergy, or pollen allergy.

[0026] FIGS. 3A & 3B show that mast cells are consistently elevated in stomach (**FIG. 3A**) and duodenal (**FIG. 3B**) biopsies in symptomatic patients. Horizontal shading indicates normal mast cell levels (*see, e.g.,* Hahn *et al.* (2007) *Am. J. Surg. Pathol.* 31:1669-1676; Tison *et al.* (2010) *J. Allergy Clin. Immunol.* 125:AB182; Walker *et al.* (2009) *Aliment. Pharmacol. Ther.* 29:765-773; Martinez *et al.* (2013) *Gut* 62:1160-1168; and Doyle *et al.* (2014) *Am. J. Surg. Pathol.* 38:832-843).

[0027] FIG. 4 shows the mean symptom intensity (0-10) during screening for each of 8 symptoms for patients with ≥ 30 eosinophils/hpf ($n = 71$; light) or patients with < 30 eosinophils/hpf but ≥ 30 mast cells/hpf ($n = 16$; dark). For the cohort with ≥ 30 eosinophils/hpf, one patient was missing symptom data and did not enroll.

[0028] FIGS. 5A & 5B show two individual patient case studies.

[0029] FIGS. 6A & 6B show that increased activation of mast cells is seen in tissues where only mast cells (and not eosinophils) are elevated. In **FIG. 6A**, human gastric biopsy tissue was processed into single cells, followed by quantification of mast cells (CD117+ Siglec-8+) and eosinophils (CD117- Siglec-8+) by flow cytometry. In **FIG. 6B**, mast cells identified in **FIG. 6A** were further analyzed for the activation and degranulation marker CD63 using flow cytometry. Staining with an antibody specific for CD63 or control antibody are shown.

[0030] FIG. 7 shows the mean and median change in total symptom score from baseline (daily average of screening period) to the average daily score for the two weeks after last dose of the anti-Siglec-8 antibody.

CLAIMS

What is claimed is:

1. Use of a composition comprising an antibody that binds to human Siglec-8 in the manufacture of a medicament for treating or preventing one or more symptoms of gastritis, enteritis, duodenitis, or gastroenteritis in an individual, wherein the use comprises:
 - (a) detecting number of mast cells from a first sample obtained from gastric, duodenal, jejunal, ileal, or colonic mucosa of the individual;
 - (b) detecting number of eosinophils from a second sample obtained from gastric, duodenal, jejunal, ileal, or colonic mucosa of the individual; and
 - (c) if the first sample has an increased number of mast cells as compared to a mast cell reference and the second sample does not have increased number of eosinophils as compared to an eosinophil reference, an effective amount of the medicament is to be administered to the individual.
2. Use of a composition comprising an antibody that binds to human Siglec-8 in the manufacture of a medicament for treating or preventing one or more symptoms of gastritis, enteritis, duodenitis, or gastroenteritis in an individual, wherein the individual has an increased number of mast cells in at least a portion of the gastric, duodenal, jejunal, ileal, or colonic mucosa as compared to a mast cell reference, and wherein the individual does not have increased number of eosinophils in at least a portion of the gastric, duodenal, jejunal, ileal, or colonic mucosa as compared to an eosinophil reference.
3. The use according to claim 2, wherein a first sample obtained from the gastric, duodenal, jejunal, ileal, or colonic mucosa of the individual has an increased number of mast cells as compared to the mast cell reference, and wherein a second sample obtained from the gastric, duodenal, jejunal, ileal, or colonic mucosa of the individual does not have increased number of eosinophils as compared to the eosinophil reference.
4. The use according to claim 1 or claim 3, wherein the first and the second samples are the same.

5. The use according to any one of claims 1, 3, and 4, wherein one or both of the first and second samples is/are from a gastric or duodenal biopsy.
6. The use according to any one of claims 1, 3, and 4, wherein one or both of the first and second samples is/are from an esophago-gastro-duodenoscopy (EGD) with biopsy.
7. The use according to any one of claims 1, 3, and 4-6, wherein the first sample has at least one high-power field (HPF) that has a mast cell count of 20 or more mast cells per HPF.
8. The use according to claim 7, wherein mast cells are detected by immunohistochemical (IHC) staining for tryptase, CD117, or IgE receptor.
9. The use according to any one of claims 1, 3, and 4-8, wherein the second sample has one or more HPFs that each have an eosinophil count of less than 30 eosinophils per HPF.
10. The use according to any one of claims 1, 3, and 4-8, wherein the second sample is obtained from the gastric mucosa of the individual, and wherein the second sample does not have at least five HPFs that each have an eosinophil count of 30 or more eosinophils per HPF.
11. The use according to any one of claims 1, 3, and 4-8, wherein the second sample is obtained from the duodenal mucosa of the individual, and wherein the second sample does not have at least three HPFs that each have an eosinophil count of 30 or more eosinophils per HPF.
12. The use according to any one of claims 1, 3, and 4-11, wherein the number of mast cells in the first sample is detected 45 days or less prior to administration of the composition.
13. The use according to any one of claims 1-12, wherein the individual has, or has been diagnosed with, gastroesophageal reflux disease (GERD).
14. The use according to claim 13, wherein the individual is refractory to treatment with an antacid, H2 blocker, and/or proton pump inhibitor.
15. The use according to any one of claims 1-12, wherein the individual has, or has been diagnosed with, irritable bowel syndrome (IBS).
16. The use according to any one of claims 1-12, wherein the individual has, or has been diagnosed with, functional dyspepsia.

17. The use according to any one of claims 1-12, wherein the individual has had, or has previously been diagnosed with, eosinophilic gastritis, and wherein the individual has one or more symptoms of eosinophilic gastritis without elevated eosinophils.
18. The use according to any one of claims 1-12, wherein the individual has had, or has previously been diagnosed with, eosinophilic gastroenteritis, and wherein the individual has one or more symptoms of eosinophilic gastroenteritis without elevated eosinophils.
19. The use according to any one of claims 1-18, wherein one or both of a number or activity of mast cells in a sample obtained from the gastric, duodenal, jejunal, ileal, or colonic mucosa of the individual are reduced after administration of the composition as compared to a baseline level before administration of the composition.
20. The use according to any one of claims 1-19, wherein, prior to administration of the composition, the individual has failed or is not adequately controlled by one or more standard-of-care treatments for gastritis or gastroenteritis.
21. The use according to claim 20, wherein the one or more standard-of-care treatments for gastritis or gastroenteritis are selected from the group consisting of proton pump inhibitor (PPI) treatment, corticosteroid treatment, and dietary treatment.
22. The use according to any one of claims 1-21, wherein the one or more symptom(s) of gastritis, duodenitis, enteritis, or gastroenteritis in the individual are reduced after administration of the composition as compared to a baseline level before administration of the composition.
23. The use according to claim 22, wherein the one or more symptom(s) of gastritis, duodenitis, enteritis, or gastroenteritis in the individual are reduced by at least 60% after administration of the composition as compared to a baseline level before administration of the composition.
24. The use according to any one of claims 1-21, wherein one or more of abdominal pain, nausea, vomiting, loss of appetite, abdominal cramping, fullness before finishing a meal, bloating, diarrhea, and liquid or watery stools in the individual are reduced after administration of the composition as compared to a baseline level before administration of the composition.

25. Use of a composition comprising an antibody that binds to human Siglec-8 in the manufacture of a medicament for treating or preventing one or more symptoms of esophagitis in an individual, wherein the use comprises:

(a) detecting number of mast cells from a first sample obtained from esophageal mucosa of the individual;

(b) detecting number of eosinophils from a second sample obtained from the esophageal mucosa of the individual; and

(c) if the first sample has an increased number of mast cells as compared to a mast cell reference and the second sample does not have increased number of eosinophils as compared to an eosinophil reference, an effective amount of the medicament is to be administered to the individual.

26. Use of a composition comprising an antibody that binds to human Siglec-8 in the manufacture of a medicament for treating or preventing one or more symptoms of esophagitis in an individual, wherein the individual has an increased number of mast cells in at least a portion of the esophageal mucosa as compared to a mast cell reference, and wherein the individual does not have increased number of eosinophils in at least a portion of the esophageal mucosa as compared to an eosinophil reference.

27. The use according to claim 26, wherein a first sample obtained from the esophageal mucosa of the individual has an increased number of mast cells as compared to the mast cell reference, and wherein a second sample obtained from the esophageal mucosa of the individual does not have increased number of eosinophils as compared to the eosinophil reference.

28. The use according to claim 25 or claim 27, wherein the first and the second samples are the same.

29. The use according to any one of claims 25, 27, and 28, wherein one or both of the first and second samples is/are from an esophageal biopsy sample.

30. The use according to any one of claims 25, 27, and 28, wherein one or both of the first and second samples is/are from an esophago-gastro-duodenoscopy (EGD) with biopsy.

31. The use according to any one of claims 25, 27, and 28-30, wherein the first sample has at least one high-power field (HPF) with a mast cell count of 10 or more mast cells per HPF.
32. The use according to claim 31, wherein mast cells are detected by immunohistochemical (IHC) staining for tryptase, CD117, or IgE receptor.
33. The use according to any one of claims 25, 27, and 28-32, wherein the second sample has one or more HPFs with an eosinophil count of less than 15 eosinophils per HPF.
34. The use according to any one of claims 25, 27, and 28-32, wherein the second sample does not have an HPF with an eosinophil count of 15 or more eosinophils per HPF.
35. The use according to any one of claims 25-34, wherein the individual has, or has been diagnosed with, gastroesophageal reflux disease (GERD).
36. The use according to claim 35, wherein the individual is refractory to treatment with an antacid, H2 blocker, and/or proton pump inhibitor.
37. The use according to any one of claims 25-36, wherein one or more of a number, activity, or location of mast cells in a sample obtained from the esophageal mucosa of the individual is reduced after administration of the composition as compared to a baseline level before administration of the composition.
38. The use according to any one of claims 25-37, wherein, prior to administration of the composition, the individual has failed or is not adequately controlled by one or more standard-of-care treatments for esophagitis.
39. The use according to any one of claims 25-38, wherein the one or more symptom(s) of esophagitis in the individual are reduced after administration of the composition as compared to a baseline level before administration of the composition.
40. The use according to claim 39, wherein the one or more symptom(s) of esophagitis in the individual are reduced by at least 60% after administration of the composition as compared to a baseline level before administration of the composition.

41. The use according to any one of claims 25-38, wherein one or more of heartburn, nausea, dysphagia/difficulty swallowing, vomiting, abdominal pain, cough, food impaction, early satiety, loss of appetite, chest pain, feeding intolerance or refusal, and gastroesophageal reflux in the individual are reduced after administration of the composition as compared to a baseline level before administration of the composition.

42. Use of a composition comprising an antibody that binds to human Siglec-8 in the manufacture of a medicament for treating or preventing one or more symptoms of colitis in an individual, wherein the use comprises:

(a) detecting number of mast cells from a first sample obtained from colonic mucosa of the individual;

(b) detecting number of eosinophils from a second sample obtained from colonic mucosa of the individual; and

(c) if the first sample has an increased number of mast cells as compared to a mast cell reference and the second sample does not have increased number of eosinophils as compared to an eosinophil reference, an effective amount of the medicament is to be administered to the individual.

43. Use of a composition comprising an antibody that binds to human Siglec-8 in the manufacture of a medicament for treating or preventing one or more symptoms of colitis in an individual, wherein the individual has an increased number of mast cells in at least a portion of the colonic mucosa as compared to a mast cell reference, and wherein the individual does not have increased number of eosinophils in at least a portion of the colonic mucosa as compared to an eosinophil reference.

44. The use according to claim 43, wherein a first sample obtained from the colonic mucosa of the individual has an increased number of mast cells as compared to the mast cell reference, and wherein a second sample obtained from the colonic mucosa of the individual does not have increased number of eosinophils as compared to the eosinophil reference.

45. The use according to claim 42 or claim 44, wherein the first and the second samples are the same.

46. The use according to any one of claims 42-45, wherein the colitis is ulcerative colitis.
47. The use according to any one of claims 42-46, wherein the first sample has at least one high-power field (HPF) with a mast cell count of 30 or more mast cells per HPF.
48. The use according to claim 47, wherein mast cells are detected by immunohistochemical (IHC) staining for tryptase, CD117, or IgE receptor.
49. The use according to any one of claims 42-48, wherein the second sample has one or more HPFs with an eosinophil count of less than 60 eosinophils per HPF.
50. The use according to any one of claims 42-48, wherein the second sample does not have an HPF with an eosinophil count of 60 or more eosinophils per HPF.
51. The use according to any one of claims 42-50, wherein the number of mast cells in the first sample is detected 45 days or less prior to administration of the composition.
52. The use according to any one of claims 42-51, wherein the individual has had, or has previously been diagnosed with, eosinophilic colitis, and wherein the individual has one or more symptoms of eosinophilic colitis without elevated eosinophils.
53. The use according to any one of claims 42-52, wherein one or both of a number or activity of mast cells in a sample obtained from the colonic mucosa of the individual are reduced after administration of the composition as compared to a baseline level before administration of the composition.
54. The use according to any one of claims 42-53, wherein, prior to administration of the composition, the individual has failed or is not adequately controlled by one or more standard-of-care treatments for colitis.
55. The use according to any one of claims 42-54, wherein the one or more symptom(s) of colitis in the individual are reduced after administration of the composition as compared to a baseline level before administration of the composition.

56. The use according to claim 55, wherein the one or more symptom(s) of colitis in the individual are reduced by at least 60% after administration of the composition as compared to a baseline level before administration of the composition.
57. The use according to any one of claims 1-56, wherein the composition is to be administered by intravenous infusion.
58. The use according to claim 57, wherein the composition is to be administered by intravenous infusion once a month for 3 or more months.
59. The use according to any one of claims 1-56, wherein the composition is to be administered by subcutaneous injection.
60. The use according to any one of claims 1-56, wherein the composition is to be administered by intravenous infusion at one or more doses comprising between about 0.3 mg/kg and about 3.0 mg/kg of the antibody.
61. The use according to any one of claims 1-56, wherein the individual is to be administered a first dose comprising about 0.3 mg/kg of the antibody, a second dose comprising about 1.0 mg/kg of the antibody, and a third dose comprising about 3.0 mg/kg of the antibody.
62. The use according to claim 61, wherein the individual is to be administered a first dose comprising about 0.3 mg/kg of the antibody on Day 1, a second dose comprising about 1.0 mg/kg of the antibody between Day 26 and Day 32, a third dose comprising about 3.0 mg/kg of the antibody between Day 54 and Day 60, a fourth dose comprising about 3.0 mg/kg of the antibody between Day 82 and Day 88, a fifth dose comprising about 3.0 mg/kg of the antibody between Day 110 and Day 116, and a sixth dose comprising about 3.0 mg/kg of the antibody between Day 138 and Day 144.
63. The use according to any one of claims 1-62, wherein the antibody comprises a Fc region and N-glycoside-linked carbohydrate chains linked to the Fc region, wherein less than 50% of the N-glycoside-linked carbohydrate chains of the antibody in the composition contain a fucose residue.
64. The use according to claim 63, wherein substantially none of the N-glycoside-linked carbohydrate chains of the antibody in the composition contain a fucose residue.

65. The use according to any one of claims 1-64, wherein the antibody comprises a heavy chain variable region and a light chain variable region, wherein the heavy chain variable region comprises (i) HVR-H1 comprising the amino acid sequence of SEQ ID NO:61, (ii) HVR-H2 comprising the amino acid sequence of SEQ ID NO:62, and (iii) HVR-H3 comprising the amino acid sequence of SEQ ID NO:63; and/or wherein the light chain variable region comprises (i) HVR-L1 comprising the amino acid sequence of SEQ ID NO:64, (ii) HVR-L2 comprising the amino acid sequence of SEQ ID NO:65, and (iii) HVR-L3 comprising the amino acid sequence of SEQ ID NO:66.

66. The use according to any one of claims 1-64, wherein the antibody comprises a heavy chain variable region and a light chain variable region, wherein the heavy chain variable region comprises (i) HVR-H1 comprising the amino acid sequence of SEQ ID NO:61, (ii) HVR-H2 comprising the amino acid sequence of SEQ ID NO:62, and (iii) HVR-H3 comprising the amino acid sequence selected from SEQ ID NOs:67-70; and/or wherein the light chain variable region comprises (i) HVR-L1 comprising the amino acid sequence of SEQ ID NO:64, (ii) HVR-L2 comprising the amino acid sequence of SEQ ID NO:65, and (iii) HVR-L3 comprising the amino acid sequence of SEQ ID NO:71.

67. The use according to any one of claims 1-64, wherein the antibody comprises a heavy chain variable region comprising the amino acid sequence of SEQ ID NO:6; and/or a light chain variable region comprising an amino acid sequence selected from SEQ ID NO:16 or 21.

68. The use according to any one of claims 1-64, wherein the antibody comprises a heavy chain variable region comprising the amino acid sequence selected from SEQ ID NOs:11-14; and/or a light chain variable region comprising an amino acid sequence selected from SEQ ID NOs:23-24.

69. The use according to any one of claims 1-64, wherein the antibody comprises a heavy chain variable region comprising the amino acid sequence selected from SEQ ID NOs:2-14; and/or a light chain variable region comprising an amino acid sequence selected from SEQ ID NOs:16-24.

70. The use according to any one of claims 1-64, wherein the antibody comprises a heavy chain variable region comprising the amino acid sequence selected from SEQ ID NOs:2-10;

and/or a light chain variable region comprising an amino acid sequence selected from SEQ ID NOs:16-22.

71. The use according to any one of claims 1-64, wherein the antibody comprises:

(a) heavy chain variable region comprising:

(1) an HC-FR1 comprising the amino acid sequence selected from SEQ ID NOs:26-29;

(2) an HVR-H1 comprising the amino acid sequence of SEQ ID NO:61;

(3) an HC-FR2 comprising the amino acid sequence selected from SEQ ID NOs:31-36;

(4) an HVR-H2 comprising the amino acid sequence of SEQ ID NO:62;

(5) an HC-FR3 comprising the amino acid sequence selected from SEQ ID NOs:38-43;

(6) an HVR-H3 comprising the amino acid sequence of SEQ ID NO:63; and

(7) an HC-FR4 comprising the amino acid sequence selected from SEQ ID NOs:45-46, and/or

(b) a light chain variable region comprising:

(1) an LC-FR1 comprising the amino acid sequence selected from SEQ ID NOs:48-49;

(2) an HVR-L1 comprising the amino acid sequence of SEQ ID NO:64;

(3) an LC-FR2 comprising the amino acid sequence selected from SEQ ID NOs:51-53;

(4) an HVR-L2 comprising the amino acid sequence of SEQ ID NO:65;

(5) an LC-FR3 comprising the amino acid sequence selected from SEQ ID NOs:55-58;

(6) an HVR-L3 comprising the amino acid sequence of SEQ ID NO:66; and

(7) an LC-FR4 comprising the amino acid sequence of SEQ ID NO:60.

72. The use according to any one of claims 1-64, wherein the antibody comprises:

(a) heavy chain variable region comprising:

(1) an HC-FR1 comprising the amino acid sequence of SEQ ID NO:26;

(2) an HVR-H1 comprising the amino acid sequence of SEQ ID NO:61;

- (3) an HC-FR2 comprising the amino acid sequence of SEQ ID NO:34;
- (4) an HVR-H2 comprising the amino acid sequence of SEQ ID NO:62;
- (5) an HC-FR3 comprising the amino acid sequence of SEQ ID NO:38;
- (6) an HVR-H3 comprising the amino acid sequence of SEQ ID NO:63; and
- (7) an HC-FR4 comprising the amino acid sequence of SEQ ID NOs:45; and/or

(b) a light chain variable region comprising:

- (1) an LC-FR1 comprising the amino acid sequence of SEQ ID NO:48;
- (2) an HVR-L1 comprising the amino acid sequence of SEQ ID NO:64;
- (3) an LC-FR2 comprising the amino acid sequence of SEQ ID NO:51;
- (4) an HVR-L2 comprising the amino acid sequence of SEQ ID NO:65;
- (5) an LC-FR3 comprising the amino acid sequence of SEQ ID NO:55;
- (6) an HVR-L3 comprising the amino acid sequence of SEQ ID NO:66; and
- (7) an LC-FR4 comprising the amino acid sequence of SEQ ID NO:60.

73. The use according to any one of claims 1-64, wherein the antibody comprises:

(a) heavy chain variable region comprising:

- (1) an HC-FR1 comprising the amino acid sequence of SEQ ID NO:26;
- (2) an HVR-H1 comprising the amino acid sequence of SEQ ID NO:61;
- (3) an HC-FR2 comprising the amino acid sequence of SEQ ID NO:34;
- (4) an HVR-H2 comprising the amino acid sequence of SEQ ID NO:62;
- (5) an HC-FR3 comprising the amino acid sequence of SEQ ID NO:38;
- (6) an HVR-H3 comprising the amino acid sequence of SEQ ID NO:63; and
- (7) an HC-FR4 comprising the amino acid sequence of SEQ ID NOs:45; and/or

(b) a light chain variable region comprising:

- (1) an LC-FR1 comprising the amino acid sequence of SEQ ID NO:48;
- (2) an HVR-L1 comprising the amino acid sequence of SEQ ID NO:64;
- (3) an LC-FR2 comprising the amino acid sequence of SEQ ID NO:51;
- (4) an HVR-L2 comprising the amino acid sequence of SEQ ID NO:65;
- (5) an LC-FR3 comprising the amino acid sequence of SEQ ID NO:58;
- (6) an HVR-L3 comprising the amino acid sequence of SEQ ID NO:66; and
- (7) an LC-FR4 comprising the amino acid sequence of SEQ ID NO:60.

74. The use according to any one of claims 1-64, wherein the antibody comprises:

a heavy chain variable region comprising (i) HVR-H1 comprising the amino acid sequence of SEQ ID NO:88, (ii) HVR-H2 comprising the amino acid sequence of SEQ ID NO:91, and (iii) HVR-H3 comprising the amino acid sequence of SEQ ID NO:94; and/or a light chain variable region comprising (i) HVR-L1 comprising the amino acid sequence of SEQ ID NO:97, (ii) HVR-L2 comprising the amino acid sequence of SEQ ID NO:100, and (iii) HVR-L3 comprising the amino acid sequence of SEQ ID NO:103;

a heavy chain variable region comprising (i) HVR-H1 comprising the amino acid sequence of SEQ ID NO:89, (ii) HVR-H2 comprising the amino acid sequence of SEQ ID NO:92, and (iii) HVR-H3 comprising the amino acid sequence of SEQ ID NO:95; and/or a light chain variable region comprising (i) HVR-L1 comprising the amino acid sequence of SEQ ID NO:98, (ii) HVR-L2 comprising the amino acid sequence of SEQ ID NO:101, and (iii) HVR-L3 comprising the amino acid sequence of SEQ ID NO:104; or

a heavy chain variable region comprising (i) HVR-H1 comprising the amino acid sequence of SEQ ID NO:90, (ii) HVR-H2 comprising the amino acid sequence of SEQ ID NO:93, and (iii) HVR-H3 comprising the amino acid sequence of SEQ ID NO:96; and/or a light chain variable region comprising (i) HVR-L1 comprising the amino acid sequence of SEQ ID NO:99, (ii) HVR-L2 comprising the amino acid sequence of SEQ ID NO:102, and (iii) HVR-L3 comprising the amino acid sequence of SEQ ID NO:105.

75. The use according to any one of claims 1-64, wherein the antibody comprises:

a heavy chain variable region comprising the amino acid sequence of SEQ ID NO:106; and/or a light chain variable region comprising the amino acid sequence of SEQ ID NO:109;

a heavy chain variable region comprising the amino acid sequence of SEQ ID NO:107; and/or a light chain variable region comprising the amino acid sequence of SEQ ID NO:110; or

a heavy chain variable region comprising the amino acid sequence of SEQ ID NO:108; and/or a light chain variable region comprising the amino acid sequence of SEQ ID NO:111.

76. The use according to any one of claims 1-64, wherein the antibody binds to a human Siglec-8 and a non-human primate Siglec-8.

77. The use according to claim 76, wherein the non-human primate is a baboon.

78. The use according to claim 76, wherein the antibody binds to an epitope in Domain 1 of human Siglec-8, wherein Domain 1 comprises the amino acid sequence of SEQ ID NO:112.
79. The use according to claim 76, wherein the antibody binds to an epitope in Domain 3 of human Siglec-8, wherein Domain 3 comprises the amino acid sequence of SEQ ID NO:114.
80. The use according to claim 76, wherein the antibody binds to the same epitope as antibody 4F11.
81. The use according to any one of claims 1-64, wherein the antibody binds to an epitope in Domain 2 or Domain 3 of human Siglec-8.
82. The use according to claim 81, wherein Domain 2 comprises the amino acid sequence of SEQ ID NO:113.
83. The use according to claim 81, wherein the antibody binds to the same epitope as antibody 1C3.
84. The use according to claim 81, wherein Domain 3 comprises the amino acid sequence of SEQ ID NO:114.
85. The use according to claim 81, wherein the antibody binds to the same epitope as antibody 1H10.
86. The use according to any one of claims 1-64, wherein the antibody binds to an epitope in Domain 1 of human Siglec-8 and competes with antibody 4F11 for binding to Siglec-8.
87. The use according to claim 86, wherein the antibody does not compete with antibody 2E2 for binding to Siglec-8.
88. The use according to claim 87, wherein the antibody is not antibody 2E2.
89. The use according to claim 86, wherein Domain 1 comprises the amino acid sequence of SEQ ID NO:112.
90. The use according to any one of claims 65-89, wherein the antibody is a human antibody, a humanized antibody, or a chimeric antibody.

91. The use according to any one of claims 65-90, wherein the antibody depletes blood eosinophils and inhibits mast cell activation.
92. The use according to any one of claims 65-91, wherein the antibody comprises a heavy chain Fc region comprising a human IgG Fc region.
93. The use according to claim 92, wherein the human IgG Fc region comprises a human IgG1 Fc region.
94. The use according to claim 93, wherein the human IgG1 Fc region is non-fucosylated.
95. The use according to claim 92, wherein the human IgG Fc region comprises a human IgG4 Fc region.
96. The use according to claim 95, wherein the human IgG4 Fc region comprises the amino acid substitution S228P, wherein the amino acid residues are numbered according to the EU index as in Kabat.
97. The use according to any one of claims 65-89, wherein the antibody has been engineered to improve antibody-dependent cell-mediated cytotoxicity (ADCC) activity.
98. The use according to claim 97, wherein the antibody comprises at least one amino acid substitution in the Fc region that improves ADCC activity.
99. The use according to any one of claims 65-91, wherein at least one or two of the heavy chains of the antibody is non-fucosylated.
100. The use according to any one of claims 1-64, wherein the antibody comprises a heavy chain comprising the amino acid sequence of SEQ ID NO:75; and/or a light chain comprising the amino acid sequence selected from SEQ ID NO:76 or 77.
101. The use according to any one of claims 1-100, wherein the antibody is a monoclonal antibody.
102. The use according to any one of claims 1-101, wherein the composition is to be administered in combination with one or more additional therapeutic agent(s) for treating or preventing gastritis, gastroenteritis, or esophagitis.

103. The use according to claim 102, wherein the one or more additional therapeutic agent(s) for treating or preventing gastritis, gastroenteritis, or esophagitis are selected from the group consisting of PPIs, systemic corticosteroids, topical corticosteroids, antihistamines, mast cell stabilizers, H-2 blockers, anti-IgE antibodies, calcineurin inhibitors, immunomodulatory agents, and immunosuppressive agents.

104. The use according to any one of claims 1-103, wherein the individual is a human.

105. The use according to any one of claims 1-104, wherein the composition is a pharmaceutical composition comprising the antibody and a pharmaceutically acceptable carrier.

106. An article of manufacture comprising a medicament comprising a composition comprising an antibody that binds to human Siglec-8 and a package insert comprising instructions for administration of the medicament in an individual in need thereof according to any one of claims 1-105.