

(c) written instructions,

wherein detection of a panel of proteins comprising CTSD, CEA and Seprase at levels above a threshold indicates the presence of a polyp in the colon or the rectum in the human subject with a sensitivity of 70%.

5 | [0015b] A kit is disclosed for detecting a polyp in a colon or rectum in a human subject, said kit comprising:

(a) a container for collecting a sample from said human subject;

(b) a panel of antibodies comprising an antibody that binds Cathepsin D (CATD); an antibody that binds Carcinoembryonic antigen (CEA); and an antibody that binds

10 | Fibroblast activation protein, alpha (SEPR); and

(c) written instructions, wherein detection of a panel of proteins comprising CATD, CEA and SEPR at levels above a threshold indicates the presence of a polyp in the colon or the rectum in the human subject with a sensitivity of at least 70%.

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#### **INCORPORATION BY REFERENCE**

**[016]** All publications, patents, and patent applications mentioned in this specification are herein incorporated by reference to the same extent as if each individual publication, patent, or patent application was specifically and individually indicated to be incorporated by reference.

We claim:

1. A kit for detecting a polyp in a colon or rectum in a human subject, said kit comprising:

(a) a container for collecting a sample from said human subject;

(b) a panel of antibodies comprising an antibody that binds Cathepsin D (CATD); an antibody that binds Carcinoembryonic antigen (CEA); and an antibody that binds Fibroblast activation protein, alpha (SEPR); and

(c) written instructions, wherein detection of a panel of proteins comprising CATD, CEA and SEPR at levels above a threshold indicates the presence of a polyp in the colon or the rectum in the human subject with a sensitivity of at least 70%.

2. The kit of claim 1, wherein at least one antibody of said panel of antibodies is tagged with a label.

3. The kit of claim 2, wherein the label is selected from the group consisting of a radioactive label, a fluorescent label, an enzyme, and a chemiluminescent tag.

4. The kit of claim 1, wherein the panel of antibodies is packaged in an aqueous medium.

5. The kit of claim 1, wherein the panel of antibodies is packaged in lyophilized form.

6. The kit of claim 1, wherein the panel of antibodies comprises at least one antibody that binds at least one protein selected from the group consisting of: Complement Component 9 (C9), alpha-1-acid glycoprotein 1 (ORM1), and alpha-1-antitrypsin (SERPINA1).

7. The kit of claim 1, wherein the detection indicates the presence of a polyp of the colon or the rectum in said human subject with a specificity of at least 70%.

8. The kit of claim 1, wherein the sample is a plasma sample.
9. The kit of claim 1, wherein the sample is a serum sample.
10. The kit of claim 1, wherein the polyp is a malignant polyp.
11. The kit of claim 1, wherein the polyp is an advanced adenomatous polyp.
12. The kit of claim 1, wherein the detection indicates the presence of a polyp of the colon or the rectum in the human subject with a specificity of at least 80%.
13. The kit of claim 1, wherein the detection indicates the presence of a polyp of the colon or the rectum in the human subject with a sensitivity of at least 80%.

WHAT IS CLAIMED IS:

1. A kit for detecting a polyp in a colon or rectum in a human subject, said kit comprising:
  - (a) a container for collecting a sample from said human subject;
  - (b) a panel of antibodies comprising an antibody that binds Cathepsin D (CTSD); an antibody that binds Carcinoembryonic antigen (CEA); and an antibody that binds Fibroblast activation protein, alpha (Seprase); and
  - (c) written instructions,wherein detection of a panel of proteins comprising CTSD, CEA and Seprase at levels above a threshold indicates the presence of a polyp in the colon or the rectum in the human subject with a sensitivity of 70%.
2. The kit of claim 1, wherein at least one antibody of said panel of antibodies is tagged with a label.
3. The kit of claim 2, wherein the label is selected from the group consisting of a radioactive label, a fluorescent label, an enzyme, and a chemiluminescent tag.
4. The kit of claim 1, wherein the panel of antibodies is packaged in an aqueous medium.
5. The kit of claim 1, wherein the panel of antibodies is packaged in lyophilized form.
6. The kit of claim 1, wherein the panel of antibodies comprises at least one antibody that binds at least one protein selected from the group consisting of: Complement Component 9 (C9), alpha-1-acid glycoprotein 1 (ORM1), and alpha-1-antitrypsin (SERPINA1).
7. The kit of claim 1, wherein the detection indicates the presence of a polyp of the colon or the rectum in said human subject with a specificity of at least 70%.
8. The kit of claim 1, wherein the sample is a plasma sample.

9. The kit of claim 1, wherein the sample is a serum sample.
10. The kit of claim 1, wherein the polyp is a malignant polyp.
11. The kit of claim 1, wherein the polyp is an advanced adenomatous polyp.
12. The kit of claim 1, wherein the detection indicates the presence of a polyp of the colon or the rectum in the human subject with a specificity of at least 80%.
13. The kit of claim 1, wherein the detection indicates the presence of a polyp of the colon or the rectum in the human subject with a sensitivity of at least 80%.