CLAIMS:

1. A polypeptide comprising an N-terminal portion and a C-terminal portion, wherein the N-terminal portion comprises an amino acid sequence with 0, 1, 2, 3, or 4 amino acid substitutions relative to any one of SEQ ID NO: 40-70 and 76-145, and wherein the C-terminal portion comprises an amino acid sequence at least 70% identical to SEQ ID NO: 71, 72, 74, or 75.

2. The polypeptide of claim 1, wherein the N-terminal portion comprises the amino acid sequence of any one of SEQ ID NO: 40-70 and 76-145.

3. The polypeptide of claim 1, wherein the N-terminal portion comprises the amino acid sequence FTNPTWXXXX (SEQ ID NO: 146), wherein X is any amino acid.

4. The polypeptide of claim 3, wherein the N-terminal portion comprises the amino acid sequence FTNPTW[A or D or R or S or K or Q][P or A or T or G or S or Q or R or H or E][V or F or Q or G or S or H or L or Y][T or V or Q or S or A] (SEQ ID NO: 147).

5. The polypeptide of any one of claims 1-4, wherein the C-terminal portion comprises the amino acid sequence of SEQ ID NO: 71, 72, 74, or 75.

6. The polypeptide of any one of claims 1-5, wherein the polypeptide inhibits CCR2 with an IC50 of less than 300 nM, less than 200 nM, less than 100 nM, less than 50 nM, less than 30 nM, less than 10 nM, or less than 3 nM.

7. A peptide comprising an amino acid sequence with 0, 1, 2, 3, or 4 amino acid substitutions relative to any one of SEQ ID NO: 40-70 and 76-145.

8. The peptide of claim 7, comprising the amino acid sequence of any one of SEQ ID NO: 40-70 and 76-145.

9. The peptide of claim 7, comprising the amino acid sequence FTNPTWXXXX (SEQ ID NO: 146), wherein X is any amino acid.

10. A nucleic acid molecule encoding the polypeptide of any one of claims 1-6 or the peptide of any one of claims 7-9.

11. A vector comprising the nucleic acid molecule of claim 10.

12. A host cell comprising the nucleic acid molecule of claim 10 or the vector of claim 11.

13. A pharmaceutical composition comprising the polypeptide of any one of claims 1-6, the peptide of any one of claims 7-9, the nucleic acid molecule of claim 10, or the vector of claim 11, and a pharmaceutically acceptable carrier, excipient, and/or stabilizer.

14. The pharmaceutical composition of claim 13, further comprising a therapeutic agent.

15. Use of the polypeptide of any one of claims 1-6, the peptide of any one of claims 7-9, the nucleic acid molecule of claim 10, the vector of claim 11, or the pharmaceutical composition of claim 13 or 14 for inhibiting CCR2 signaling in a cell *in vitro*.

16. The use according to claim 15, wherein the cell is a dendritic cell, a monocyte, a plasma cell, a macrophage, a Kupffer cell, a Langerhans cell, a T cell, a B cell, an erythroid cell, a hepatic stellate cell, a cholangiocyte, a type 2 alveolar cell, a gastric mucus-secreting cell, an NK cell, a hepatocyte, a Hofbauer cell, a spermatid, a fibroblast, a myeloid-derived suppressor cell, a neutrophil, an osteoclast, a stem cell, a basal keratinocyte, a cardiomyocyte, an endothelial cell, a breast glandular cell, a breast myoepithelial cell, a glandular cell, a luminal cell, a theca cell, a spermatogonium, a cytotrophoblast, a smooth muscle cell, an adipocyte, a CCR2-expressing immortalized cell, or a cancer cell.

17. Use of the polypeptide of any one of claims 1-6, the peptide of any one of claims 7-9, the nucleic acid molecule of claim 10, the vector of claim 11, or the pharmaceutical composition of claim 13 or 14 in the manufacture of a medicament for treating or preventing a disease or disorder associated with CCR2 signaling in a subject.

18. The use according to claim 17, wherein the disease or disorder is a pulmonary disease, a cancer, an inflammatory or immune-related disease, a cardiovascular disease, a neurologic disease, a fibrotic condition, a wound or tissue injury, or an infectious disease.