## BRIEF SUMMARY

**[0006]** Provided herein is a compound comprising a CLPTM1L-targeting agent selected from the group consisting of an antibody, a peptide, an aptamer, or a fragment thereof. In one aspect, provided herein is a CLPTM1L-targeting agent , wherein the CLPTM1L-targeting agent is a monoclonal antibody specific for at least a portion of a CLPTM1L polypeptide. The CLPTM1L-targeting agent can be a monoclonal antibody specific for at least a portion of a CLPTM1L polypeptide. The CLPTM1L polypeptide can have the amino acid sequence set forth in SEQ ID NO: 2 or a portion thereof. The monoclonal antibody can be specific to peptide having an amino acid sequence selected from the group consisting of SEQ ID NO:4-25. The monoclonal antibody can be a monoclonal anti-CLPTM1L clone selected from the group consisting of 6-1, 6-2, 10-1, 10-2, and 10-3. The monoclonal antibody can be specific to a CLPTM1L polypeptide having one or more of the mutations set forth in Table 2. In some cases, the CLPTM1L-targeting agent is a peptide having an amino acid sequence selected from the group consisting of SEQ ID NO:4-25.

**[0007]** In another aspect, provided herein is a pharmaceutical composition comprising a compound provided herein and a pharmaceutically acceptable carrier.

**[0008]** Provided herein is an agent according to a compound or composition provided herein for use as a medicament. In one aspect, provided herein is an agent as described above for use as a medicament. In another aspect, provided is use of such an agent in the manufacture of a medicament for the treatment of a tumor, a cancer, or a preneoplastic lesion associated with CLPTM1L protein dysfunction.

**[0009]** Provided herein is an article of manufacture comprising a pharmaceutical composition of the disclosure and instructions for administration to a human subject. In one aspect, provided herein is an article of manufacture comprising: (a) the pharmaceutical composition as described above, and (b) an insert providing instructions for treating a solid tumor in a human subject.

**[0010]** In one aspect, provided herein is use of a compound comprising a CLPTM1L-targeting agent in the manufacture of a medicament for treating or preventing a tumor in a subject in need thereof, wherein the CLPTM1L-targeting agent is a monoclonal antibody specific for at least a portion of a CLPTM1L polypeptide, whereby the tumor is treated or prevented in the subject. Also provided herein is a method for treating or preventing a tumor pre- in a subject. The use or method typically comprises administering a therapeutically effective amount of a compound comprising a CLPTM1L-targeting agent to a subject in need thereof, whereby the tumor is treated or prevented in the subject. In some cases, the CLPTM1L-targeting agent is selected from the group consisting of an antibody, a peptide, and aptamer, or a fragment thereof. The CLPTM1L-targeting agent can be a monoclonal antibody specific for at least a portion of a CLPTM1L polypeptide. The CLPTM1L polypeptide can have the amino acid sequence set forth in SEQ ID NO:2 or a portion thereof. The monoclonal antibody can be specific to a peptide having an amino acid sequence selected from the group consisting of SEQ ID NO:4-25. The monoclonal antibody can be specific to a CLPTM1L polypeptide having one or more of the mutations set forth in Table 2. The CLPTM1L-targeting agent can be a peptide having an amino acid sequence selected from the group consisting of SEQ ID NO:4-25.

**[0011]** In some cases, the tumor is a solid tumor selected from the group consisting of glioblastoma, sarcoma, carcinoma, and lymphoma. In some cases, the tumor is associated with

a cancer or pre-neoplastic lesion selected from the group consisting of lung cancer, pancreatic cancer, prostate cancer, skin cancer, bladder cancer, kidney cancer, ovarian cancer, colon cancer, colorectal cancer, breast cancer, cervical cancer, brain cancer, esophageal cancer, and stomach cancer, or a pre-neoplastic lesion thereof. The tumor can be associated with lung cancer or a pre-neoplastic lesion thereof. The tumor can exhibit resistance to a chemotherapeutic agent. The chemotherapeutic agent can be selected from the group consisting of cisplatin and gemcitabine. In some cases, the compound is administered with a pharmaceutically acceptable carrier.

**[0012]** In yet another aspect, provided herein is use of a compound comprising a CLPTM1L-targeting agent in the manufacture of a medicament for treating or preventing a tumor, a cancer, or a preneoplastic lesion associated with CLPTM1L protein dysfunction, wherein the medicament is to be administered to a cell, tissue, or organ of a subject at risk of, diagnosed as having, or exhibiting a symptom of the tumor, a cancer, or a preneoplastic lesion, wherein the CLPTM1L-targeting agent is a monoclonal antibody specific for at least a portion of a CLPTM1L polypeptide. Also provided herein is a method of treating or preventing a disease or condition associated with over-expression or inappropriate expression of a nucleic acid sequence encoding CLPTM1L in a subject. The use or method typically comprises administering a compound comprising a CLPTM1L-targeting agent to a cell, tissue, or organ of a subject at risk of, diagnosed as having, or exhibiting a symptom of the disease or condition. The disease or condition can be a cancer, tumor, (*e.g.*, solid tumor) or a pre-neoplastic lesion. The tumor, cancer, or pre-neoplastic lesion can be selected from the group consisting of lung cancer, pancreatic cancer, glioblastoma, prostate cancer, skin cancer, bladder cancer, kidney cancer, ovarian cancer, colon cancer, colorectal cancer, breast cancer, cervical cancer, brain cancer, esophageal cancer, stomach cancer, lymphoma, chronic leukemia, and acute leukemia. The tumor can exhibit resistance to a chemotherapeutic agent. The chemotherapeutic agent can be selected from the group consisting of cisplatin and gemcitabine. The CLPTM1L-targeting agent can be selected from the group consisting of an antibody, a peptide, and aptamer, or a fragment thereof. The CLPTM1L-targeting agent can be a monoclonal antibody specific for at least a portion of a CLPTM1L polypeptide. The CLPTM1L polypeptide can have the amino acid sequence set forth in SEQ ID NO: 2 or a portion thereof. In some cases, the monoclonal antibody is specific to a peptide having an amino acid sequence selected from the group consisting of SEQ ID NO:4-25. The monoclonal antibody can be specific to a CLPTM1L polypeptide having one or more of the mutations set forth in Table 2. The CLPTM1L-targeting agent can be a peptide having an amino acid sequence selected from the group consisting of SEQ ID NO:4-25. The compound can be administered with a pharmaceutically acceptable carrier.

**[0013]** These and other features, aspects, and advantages of the present invention will become better understood from the description that follows. In the description, reference is made to the accompanying drawings, which form a part hereof and in which there is shown by way of illustration, not limitation, embodiments of the disclosure. The description of preferred

## CLAIMS

We claim:

1. A CLPTM1L-targeting agent, wherein the CLPTM1L-targeting agent is a monoclonal antibody specific for at least a portion of a CLPTM1L polypeptide.

2. The agent of claim 1, wherein the CLPTM1L polypeptide has the amino acid sequence set forth in SEQ ID NO:2 or a portion thereof.

3. The agent of claim 1, wherein the monoclonal antibody specifically binds to an epitope of CLPTM1L, wherein the epitope consists of an amino acid sequence of SEQ ID NO:6 or SEQ ID NO:10.

4. The agent of claim 1, wherein the monoclonal antibody is specific to a CLPTM1L polypeptide having one or more of the mutations set forth in Table 2.

5. The agent of claim 1, wherein the monoclonal antibody has specificity for an epitope having an amino acid sequence selected from the group consisting of SEQ ID NO:4-25.

6. A pharmaceutical composition comprising the compound according to any of claims 1-4 and a pharmaceutically acceptable carrier.

7. The agent according to any of claims 1-5 for use as a medicament.

8. Use of the agent according to any of claims 1-5 in the manufacture of a medicament for the treatment of a tumor, a cancer, or a preneoplastic lesion associated with CLPTM1L protein dysfunction.

9. An article of manufacture comprising: (a) the pharmaceutical composition of claim 6, and (b) an insert providing instructions for treating a solid tumor in a human subject.

10. Use of a compound comprising a CLPTM1L-targeting agent in the manufacture of a medicament for treating or preventing a tumor in a subject in need thereof, wherein the CLPTM1L-targeting agent is a monoclonal antibody specific for at least a portion of a CLPTM1L polypeptide, whereby the tumor is treated or prevented in the subject.

11. The use of claim 10, wherein the CLPTM1L polypeptide has the amino acid sequence set forth in SEQ ID NO:2 or a portion thereof.

12. The use of claim 10, wherein the monoclonal antibody is specific to a peptide having an amino acid sequence selected from the group consisting of SEQ ID NO:4-25.

13. The use of claim 10, wherein the CLPTM1L targeting agent has specificity for an epitope having an amino acid sequence selected from the group consisting of SEQ ID NO:4-25.

14. The use of claim 10, wherein the tumor is a solid tumor selected from the group consisting of glioblastoma, sarcoma, carcinoma, and lymphoma.

15. The use of claim 10, wherein the tumor is associated with a cancer or pre-neoplastic lesion selected from the group consisting of lung cancer, pancreatic cancer, prostate cancer, skin cancer, bladder cancer, kidney cancer, ovarian cancer, colon cancer, colorectal cancer, breast cancer, cervical cancer, brain cancer, esophageal cancer, and stomach cancer, or a pre-cancerous lesion thereof.

16. The use of claim 15, wherein the tumor is associated with lung cancer or pre-cancerous lesion thereof.

17. The use of claim 10, wherein the subject is a human.

18. The use of claim 10, wherein the tumor exhibits resistance to a chemotherapeutic agent.

19. The use of claim 18, wherein the chemotherapeutic agent is selected from the group consisting of cisplatin and gemcitabine.

20. The use of claim 10, wherein the compound is to be administered with a pharmaceutically acceptable carrier.

21. Use of a compound comprising a CLPTM1L-targeting agent in the manufacture of a medicament for treating or preventing a tumor, a cancer, or a preneoplastic lesion associated with CLPTM1L protein dysfunction, wherein the medicament is to be administered to a cell, tissue, or organ of a subject at risk of, diagnosed as having, or exhibiting a symptom of the tumor, a cancer, or a preneoplastic lesion, wherein the CLPTM1L-targeting agent is a monoclonal antibody specific for at least a portion of a CLPTM1L polypeptide.

22. The use of claim 21, wherein the CLPTM1L protein dysfunction comprises one or more of pathogenic protein production, pathogenic protein modification, or pathogenic protein function.

23. The use of claim 21, wherein the tumor is a solid tumor selected from the group consisting of glioblastoma, sarcoma, carcinoma, and lymphoma.

24. The use of claim 23, wherein the tumor exhibits resistance to a chemotherapeutic agent.

25. The use of claim 24, wherein the chemotherapeutic agent is selected from the group consisting of cisplatin and gemcitabine.

26. The use of claim 21, wherein the monoclonal antibody is specific to a CLPTM1L polypeptide having one or more of the mutations set forth in Table 2.

27. The use of claim 21, wherein the monoclonal antibody is specific to a peptide having an amino acid sequence selected from the group consisting of SEQ ID NO:4-25.

28. The use of claim 21, wherein the compound is to be administered with a pharmaceutically acceptable carrier.