

**Claims**

1. An inhibitor of CSF-1R activity for use in the treatment and/or prophylaxis of neurologic diseases selected from Parkinson's disease, epilepsy, epileptogenesis, seizures or convulsions, wherein the inhibitor is an antibody or functionally active  
5 fragment or derivative thereof having a heavy chain and a light chain, wherein the variable domain of the heavy chain comprises SEQ ID NO:4 for complementary determining region (CDR)-H1, SEQ ID NO:5 for CDR-H2 and SEQ ID NO:6 for CDR-H3 and the variable domain of the light chain comprises SEQ ID NO:1 for CDR-L1, a CDR in SEQ ID NO:2 for CDR-L2 and a CDR having the sequence given  
10 in SEQ ID NO:3 for CDR-L3.
2. An inhibitor according to claim 1, wherein the antibody or fragment or derivative thereof is chimeric, humanised or human.
3. An inhibitor according to any one of claims 1 to 2, wherein the antibody or fragment or derivative thereof is bispecific or multispecific.
- 15 4. An inhibitor according to any one of claims 1 to 3, wherein the antibody is selected from the group comprising of a complete antibody molecule having full length heavy and light chains or a fragment thereof selected from the group comprising a Fab, modified Fab, Fab', modified Fab', F(ab')<sub>2</sub>, Fv, scFv, bi, tri or tetra-valent antibodies, Bis-scFv, diabodies, triabodies, tetrabodies or epitope-binding fragments of any of  
20 the above.
5. An inhibitor according to any one of claims 1 to 4, wherein the antibody or fragment or derivative thereof is conjugated to one or more effector molecule(s).
6. An inhibitor according to any one of claims 1 to 5, wherein the antibody or fragment or derivative thereof binds to CSF-1R.
- 25 7. An inhibitor according to any one of claims 1 to 6, wherein the antibody or fragment or derivative thereof crosses the blood-brain-barrier (BBB) reaching in the brain a therapeutically effective amount sufficient for the treatment and/or prophylaxis of a patient suffering from neurologic disease.
8. An inhibitor according to any of claims 1 to 7, wherein the heavy chain comprises the  
30 sequence given in SEQ ID NO:9.

9. An inhibitor according to any of claims 1 to 8, wherein the light chain comprises the sequence given in SEQ ID NO:7.
10. An inhibitor according to any of claims 1 to 9, having a heavy chain comprising the sequence given in SEQ ID NO:9 and a light chain comprising the sequence given in  
5 SEQ ID NO:7.
11. An inhibitor according to any one of claims 1 to 10, wherein the antibody or fragment or derivative thereof has a binding affinity [ $K_D$ ] for human CSF-1R of 10pM or less than 10pM.
12. The use of an inhibitor of CSF-1R activity according to any one of claims 1-11 for  
10 the manufacture of a medicament for the treatment and/or prophylaxis of neurologic diseases selected from Parkinson's disease, epilepsy, epileptogenesis, seizures or convulsions.
13. A pharmaceutical composition comprising an inhibitor according to any of claims 1 to 11, in combination with one or more of a pharmaceutically acceptable excipient,  
15 diluent or carrier.
14. A pharmaceutical composition according to claim 13, additionally comprising other active ingredients.
15. Use of a therapeutically effective amount of an inhibitor of CSF-1R activity according to claims 1-11 in the manufacture of a medicament for the treatment and/or  
20 prophylaxis of a human subject suffering from or at risk of neurologic disease selected from Parkinson's disease, epilepsy, epileptogenesis, seizures or convulsions.
16. The use according to claim 15, wherein a therapeutically effective amount of an inhibitor according to any of claims 1 to 11, or a pharmaceutical composition according to claims 13 or 14 is to be administered to the subject.
- 25 17. The use according to any one of claims 15 or 16, where the inhibitor of CSF-1R activity is to be administered in combination with one or more other therapeutically active compounds.
18. The use according to claim 17, in which the other therapeutically active compound is another anti-epileptic therapeutic agent.

19. The inhibitor for use according to any of claims 1 to 11, the use according to claim 12, the pharmaceutical composition according to any of claims 13 or 14 or the use according to any of claims 15 to 16, wherein the neurologic disease is temporal lobe epilepsy (TLE).