

CLAIMS

What is claimed is:

1. Use of an anti-CD6 antibody, or an antigen binding fragment thereof, wherein the anti-CD6 antibody, or the antigen binding fragment thereof, comprises heavy and light chain variable regions comprising amino acid sequences as set forth in SEQ ID NOs: 1 and 2 for the manufacture of a medicament for ~~A method of inhibiting T cell-mediated pulmonary inflammation, in a subject that has asthma comprising, administering to a subject an anti-CD6 antibody, or an antigen binding fragment thereof, wherein the anti-CD6 antibody, or the antigen binding fragment thereof, comprises heavy and light chain variable regions comprising amino acid sequences as set forth in SEQ ID NOs: 1 and 2.~~
2. ~~A method of inhibiting T cell-mediated pulmonary inflammation in a subject that has asthma comprising, administering to a subject an anti-CD6 antibody, or an antigen binding fragment thereof.~~
3. ~~A method of preventing or attenuating the migration of a T cell into and through a pulmonary tissue in response to an asthma-inducing antigen comprising, administering to a subject an anti-CD6 antibody, or an antigen binding fragment thereof.~~
4. 2. Use of an anti-CD6 antibody, or an antigen binding fragment thereof, wherein the anti-CD6 antibody, or the antigen binding fragment thereof, comprises heavy and light chain variable regions comprising amino acid sequences as set forth in SEQ ID NOs: 1 and 2 for the manufacture of a medicament for ~~A method of modulating or attenuating a symptom or the severity of asthma comprising, administering to a subject an anti-CD6 antibody, or an antigen binding fragment thereof.~~
5. ~~A method of modulating or attenuating a symptom or the severity of asthma comprising, contacting a T cell with an anti-CD6 antibody, or an antigen binding fragment thereof.~~
6. 3. Use according to claim 2 ~~The method of any one of the preceding claims, wherein the asthma is severe asthma.~~

~~7-4. Use according to claim 2~~The method of any one of the preceding claims, wherein the asthma is characterized by low or no blood eosinophils.

~~8-5. Use according to claim 2~~The method of any one of the preceding claims, wherein the asthma is refractory to steroid treatment.

~~9-6. Use according to claim 2~~The method of any one of the preceding claims, wherein the asthma is a neutrophilic asthma.

~~10-7. Use according to claim 2~~The method of any one of claims 1-8, wherein the asthma is a mixed inflammation asthma.

~~11. The method of any one of claims 1-8, wherein the asthma is paucigranulocytic.~~

~~12. The method of any one of the preceding claims, wherein the anti-CD6 antibody, or the antigen binding fragment thereof, binds to a CD6 protein on the surface of a T cell.~~

~~13. The method of claim 12, wherein the T cell is a Th1, Th17, or a Th1 and Th17 T cell.~~

~~14. The method of any one of the preceding claims, wherein the anti-CD6 antibody, or the antigen binding fragment thereof, is EQ001, or an antigen binding fragment of EQ001.~~

~~15. The method of any one of claims 2-13, wherein the anti-CD6 antibody, or the antigen binding fragment thereof, binds to domain 1 or 3 on CD6.~~

~~16. The method of any one of claims 1-13, wherein the anti-CD6 antibody, or the antigen binding fragment thereof, binds to domain 3 on CD6.~~

~~17. The method of any one of the preceding claims, wherein the binding of the anti-CD6 antibody, or the antigen binding fragment thereof, to the CD6 protein on the surface of a T cell modulates the activity and/or migration of the T cell.~~

~~18. The method of any one of the preceding claims, wherein the anti-CD6 antibody, or the antigen binding fragment thereof, is a humanized antibody.~~

~~19. The method of any one of claims 2-13, wherein the anti-CD6 antibody, or the antigen binding fragment thereof, is selected from the group consisting of: UMCD6 mAb, Itolizumab (EQ001), an anti-CD6 antibody described on Table 2, and an anti-CD6 antibody disclosed herein.~~

~~20. The method of any one of claims 2-13, wherein the anti-CD6 monoclonal antibody is an antibody produced by secreting hybridoma IOR T1A deposited with the ECACC as deposit No. ECACC 96112640; an antibody having the same sequence as said antibody produced by said secreting hybridoma; or an antibody having the same CDR sequences of said antibody produced by said secreting hybridoma.~~