Claims

1. Human monoclonal antibody capable of binding to factor XIa (FXIa) and antigen-binding fragment thereof comprising SEQ ID NO: 19 for the amino acid sequence for the variable light chain domain and SEQ ID NO: 20 for the amino acid sequence for the variable heavy chain.

2. Human monoclonal antibody capable of binding to factor Xla and antigen-binding fragment thereof comprising as CDRH1 SEQ ID NO: 21, as CDRH2 SEQ ID NO: 22 and as CDRH3 SEQ ID NO: 23 and as CDRL1 SEQ ID NO: 24, as CDRL2 SEQ ID NO: 25 and as CDRL3 SEQ ID NO: 26.

3. Human monoclonal antibody capable of binding to FXIa and antigen-binding fragment thereof comprising SEQ ID NO: 27 for the amino acid sequence for the variable light chain domain and SEQ ID NO: 20 for the amino acid sequence for the variable heavy chain domain.

4. Human monoclonal antibody capable of binding to FXIa and antigen-binding fragment thereof comprising as CDRH1 SEQ ID NO: 21, as CDRH2 SEQ ID NO: 22 and as CDRH3 SEQ ID NO: 23 and as CDRL1 SEQ ID NO: 24, as CDRL2 SEQ ID NO: 25 and as CDRL3 SEQ ID NO: 28.

5. **A** pharmaceutical composition comprising an antibody according to any one of claims 1 to 4.

6. A medicament comprising an antibody according to any one of claims 1 to 4.

7. A nucleic acid coding for the antibody according to any one of claims 1 to 4.

8. A vector comprising the nucleic acid according to claim 7.

9. A host cell comprising the vector of claim 8.

10. A method of using the host cell according to claim 9 to produce an antibody according to any one of claims 1 to 4, comprising culturing the host cell under suitable conditions and recovering said antibody.

11. An antibody or antigen-binding fragment thereof according to any one of claims 1 to 4 for use in the treatment and/or prophylaxis of coagulation-related disease in human or animals.