8. The ICOS binding protein or antigen binding portion thereof of any one of claims 1 to 7 wherein said ICOS binding protein or antigen binding portion thereof comprises an hIgG4PE scaffold.

9. The ICOS binding protein of any one of claims 1 to 8 wherein said ICOS binding protein is a monoclonal antibody.

10. The monoclonal antibody of claim 9 wherein the monoclonal antibody is humanized.

11. The monoclonal antibody of claim 9 wherein the monoclonal antibody is fully human.

12. The monoclonal antibody of claim 9 to 11 comprising heavy chain CDRs having the amino acid sequences set forth in SEQ ID NO:1; SEQ ID NO:2; and SEQ ID NO:3 and light chain CDRs having the amino acid sequences set forth in SEQ ID NO:4; SEQ ID NO:5; and SEQ ID NO:6.

13. The monoclonal antibody of any one of claims 9 to 12 that is an agonist to human ICOS and comprises an IgG4 isotype scaffold or a variant thereof.

14. The monoclonal antibody of claim 13 wherein said antibody comprises a hIgG4PE scaffold.

15. An ICOS binding protein or antigen binding portion thereof that cross competes for binding to human ICOS with ICOS-ligand when compared to any one of the ICOS binding proteins of claims 1 to 14.

16. A pharmaceutical composition comprising an ICOS binding protein or a monoclonal antibody of any one of claims 1 to 15 and a pharmaceutically acceptable carrier.

17. The pharmaceutical composition of claim 16 for use in the treatment of cancer, infectious disease and/or sepsis in a human in need thereof.