

WHAT IS CLAIMED IS:

1. A PD1-41BBL fusion protein in a form of at least a homo-trimer comprising a PD1 amino acid sequence capable of binding PD-L1 and a 41BBL amino acid sequence capable of at least binding 41BB, wherein said PD1 amino acid sequence is a 123-166 amino acids in length fragment of SEQ ID NO: 10; and/or comprises SEQ ID NO: 2.
2. The PD1-41BBL fusion protein of claim 1, wherein said fusion protein comprises a single amino acid linker between said PD1 and said 41BBL.
3. The PD1-41BBL fusion protein of claim 2, wherein the linker is glycine.
4. The PD1-41BBL fusion protein of any one of claims 1-3, being soluble
5. The PD1-41BBL fusion protein of any one of claims 1-4, wherein said fusion protein is capable of at least one of:
 - (i) binding PD-L1 and 41BB;
 - (ii) activating said 41BB signaling pathway in a cell expressing said 41BB; and/or
 - (iii) co-stimulating immune cells expressing said 41BB.
6. The PD1-41BBL fusion protein of any one of claims 1-5, wherein said PD1-41BBL fusion protein amino acid sequence comprises SEQ ID NO: 1.
7. A polynucleotide encoding the PD1-41BBL fusion protein of any one of claims 1-6.
8. A nucleic acid construct comprising the polynucleotide of claim 7, and a regulatory element for directing expression of said polynucleotide in a host cell.
9. A host cell comprising the PD1-41BBL fusion protein of any one of claims 1-6 or the polynucleotide or the nucleic acid construct of any one of claims 7-8.

10. A method of in-vitro producing a PD1-41BBL fusion protein, the method comprising expressing in a host cell the polynucleotide or the nucleic acid construct of any one of claims 7-8.

11. The method of claim 10, comprising isolating the fusion protein.

12. The PD1-41BBL fusion protein of any one of claims 1-6, the polynucleotide or the nucleic acid construct of any one of claims 7-8 or the host cell of claim 9 for use in treating cancer.

13. The PD1-41BBL fusion protein, the polynucleotide, the nucleic acid construct or the host cell for use of claim 12, wherein diseased cells express PD-L1.

14. A method of activating immune cells, the method comprising in-vitro activating immune cells expressing 41BB in the presence of the PD1-41BBL fusion protein of any one of claims 1-6 or the host cell of claim 9.

15. The method of claim 14, wherein said activating is in the presence of cells expressing PD-L1 or exogenous PD-L1.