


Human CD80/B7-1 protein, His tag (Animal-Free)

Cat #: PRP2028

Size: 10 µg/50 µg/100 µg/1 mg

Product Information

	Product Name: Human CD80/B7-1 protein, His tag (Animal-Free)		
REF	Catalog Number: PRP2028	LOT	Lot Number:
	Purity: >95% as determined by SDS-PAGE		
	Storage: Store at -20°C		Preparation method: HEK 293 cells
	Shipping: The product is shipped at ambient temperature		

Background: B7-1/CD80 and B7-2/CD86, together with their receptors CD28 and CTLA-4, constitute one of the dominant co-stimulatory pathways that regulate T- and B-cell responses. Although both CTLA-4 and CD28 can bind to the same ligands, CTLA-4 binds to B7-1 and B7-2 with a 20-100 fold higher affinity than CD28 and is involved in the down-regulation of the immune response. Mature mouse B7-1 consists of a 209 amino acid (aa) extracellular domain (ECD) with two immunoglobulin-like domains, a 22 aa transmembrane segment, and a 38 aa cytoplasmic domain. Within the ECD, mouse B7-1 shares 50% and 68% aa sequence identity with human and rat B7-1, respectively. Alternative splicing generates a short isoform that lacks the second Ig-like domain but retains the ability to bind CD28. Both human and mouse B7-1 and B7-2 can bind to either human or mouse CD28 and CTLA-4. B7-1 is expressed on activated B cells, activated T cells, and macrophages. B7-2 is constitutively expressed on interdigitating dendritic cells, Langerhans cells, peripheral blood dendritic cells, memory B cells, and germinal center B cells.

Sequence: Amino acid sequence derived from human CD80 (P33681-1) (Met1-Asn242) was expressed with a 6 His tag at the C-terminus.

Protein length: The recombinant human consists of 214 amino acids and predicts a molecular mass of 25.4 kDa. It migrates as an approximately 40-60 kDa band in SDS-PAGE under reducing conditions due to glycosylation.

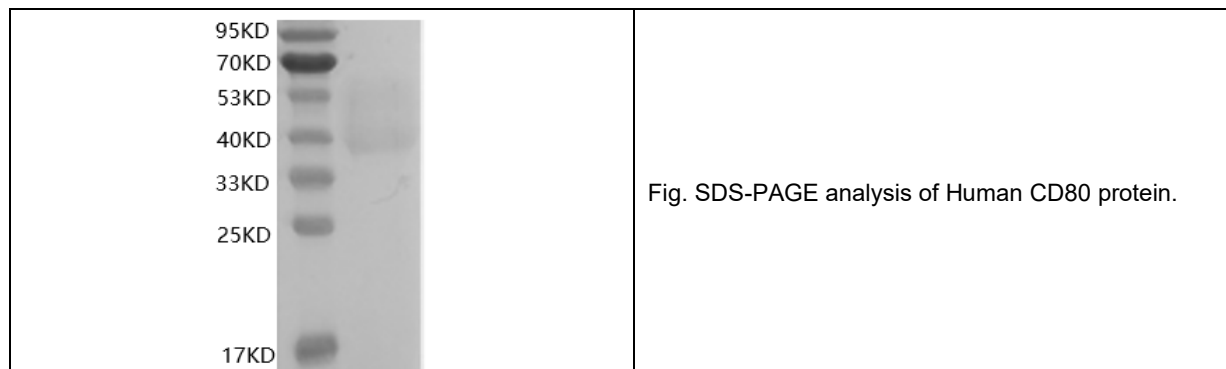
Biological Activity: Testing in progress.

Endotoxin: < 1.0 EU per µg of the protein as determined by the LAL method.

Formulation: Lyophilized from sterile PBS, pH 7.4.

Storage Instructions: Lyophilized Human CD80 protein product should be stored desiccated below -18°C. Upon reconstitution, the protein should be stored at 4°C between 2 -7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Usage notes: Always centrifuge tubes before opening. It is recommended to reconstitute the lyophilized Human CD80 protein in sterile ddH₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.



Note: The product listed herein is for research use only and is not intended for use in human or clinical diagnosis. Suggested applications of our products are not recommendations to use our products in violation of any patent or as a license. We cannot be responsible for patent infringements or other violations that may occur with the use of this product.