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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.

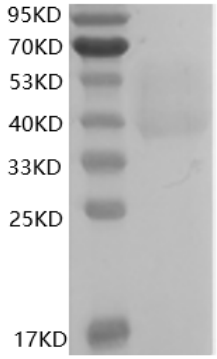
Biological Activity: Testing in progress.

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 ddH_2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

	Fig. SDS-PAGE analysis of Human CD80 protein.

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