Overview

Synonyms	Activation B7-2 antigen; B70; B7-2 antigen; B72; B7-2; B-lymphocyte activation antigen B7-2; BU63; CD28 antigen ligand 2
Description	B7-1 and B7-2 are homologous costimulatory ligands expressed on the surface of antigen presenting cells (APCs), both are type 1 transmembrane proteins with a membrane distal IgV and a membrane proximal IgC domain. They share ~25% sequence homology and interact with the same receptors, CD28 and CTLA-4.Binding of these molecules to the T cell costimulatory receptors, CD28 and CTLA-4, is essential for the activation and regulation of T cell immunity. T cell activation requires engagement of the T cell receptor (TCR) with the peptide–MHC complex presented on the cell surface of antigen presenting cells (APCs). In addition to this antigen-specific interaction, a second interaction involving costimulatory receptors (CD28, ICOS) on T cells and their respective ligands (B7-1/B7-2, ICOS-L) on APCs is required for optimal T cell activation. B7-1 and B7-2 may also function to deliver signal into dendritic cells. While B7-1 favors binding to CTLA-4, B7-2 shows a preference for CD28. Recombinant Human B7-2 Fc Chimera produced in HEK293 cells is a polypeptide chain containing 461 amino acids with the C-termimal human IgG1 Fc fragment. A fully biologically active molecule, rhB7-2 has a molecular mass of 65-80 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques.
Accession No	P42081
Species	Human
Source	*HEK293*
Biological Activity	Immobilized B7-2CD86/-Fc at 5 µg/mL (100 µL/well) can bind human Biotin-CD28-Fc with a linear range of 0.09~3.12µg/mL when detected by Streptavidin-HRP.
Sequence	LSGAAPLK IQAYFNET ADLPCQFA NSQNQSLS ELVVFWQD QENLVLNE VYLGKEKF DSVHSKYM GRTSFDSD SWTLRLHN LQIKDKGL YQCIIHHK KPTGMIRI HQMNSELS VLANFSQP EIVPISNI TENVYINL TCSSIHGY PEPKKMSV LLRTKNST IEYDGVMQ KSQDNVTE LYDVSISL SVSFPDVT SNMTIFCI LETDKTRL LSSPFSIE LEDPQPPP DHIP

Properties

Measured Molecular Weight	65-80 kDa, observed by reducing SDS-PAGE.
Purity	> 95% as analyzed by reducing SDS-PAGE.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS, 5% trehalose and mannitol.
Reconstitution	Reconstituted in ddH_2O or PBS at 100 µg/ml.
Endotoxin Level	< 0.2 EU/µg, determined by LAL method.
Storage	Lyophilized recombinant B7-2 Fc Chimera, Human remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, Human B7-2 Fc Chimera should be stable up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.
Note	For research use only

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