

DATASHEET

Version 20181206

B7-2/CD86 Fc Chimera, Human

Cat. No.: Z03416-100

Size: 100.0 µg

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-terminal 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 at GenScript.

Amino Acid Sequence:

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00001 LSGAAPLKIQ AYNFETADLP CQFANSQNS LSELVFWQD
00041 QENLVLENEY LGKEKFDSVH SKYMGRTSFD SDSWTLRLHN
00081 LQIKDKGLYQ CIIHHKKPTG MIRIHMNSE LSVLANFSQP
00121 EIVPISNITE NVYINLTCS IHGYPEPKM SVLLRTKNST
00161 IEYDGVQKS QDNVTELYDV SISLSVSFPD VTSNMTIFCI
00201 LETDKTRLLS SPFSIELEDP QPPPDHIP
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Source: HEK293

Species: Human

Biological Activity: Immobilized B7-2CD86/-Fc at 5 µg/mL (100 µL/well) can bind human Biotin-CD28-Fc with a linear range of 0.09-3.12 µg/mL when detected by Streptavidin-HRP.

Molecular Weight: 65-80 kDa, observed by reducing SDS-PAGE.

Formulation: Lyophilized from a 0.2 µm filtered solution in PBS, 5% trehalose and mannitol.

Reconstitution: Reconstituted in ddH₂O or PBS at 100 µg/mL.

Purity: > 95% as analyzed by reducing SDS-PAGE.

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.