

Recombinant Mouse Cd80 Protein, His-tagged, FITC conjugated

Cat. No. Cd80-5171MF Lot. No. (See product label)

SPECIFICATION

Product Overview FITC conjugated recombinant Mouse Cd80 (Val38-Lys245) protein was fused to His-tag at C-terminus and expressed in human 293 cells (HEK293).

Species Mouse

Source HEK293

ProteinLength Val38-Lys245

Description

B7-1 and B7-2, together with their receptors CD28 and CTLA4, constitute one of the dominant co-stimulatory pathways that regulate T and Bcell responses. Although both CTLA4 and CD28 can bind to the same ligands, CTLA4 binds to B71 and B72 with a 20 100 fold higher affinity than CD28 and is involved in the downregulation of the immune response.

B-lymphocyte activation antigen B7-1 (referred to as B7) also known as cluster of Differentiation 80 (CD80), is a member of cell surface immunoglobulin superfamily and is expressed on activated B cells, activated T cells, macrophages and dendritic cells. It is the ligand for two different proteins on the T cell surface: CD28 (for autoregulation and intercellular association) and CTLA-4 (for attenuation of regulation and cellular disassociation). CD80 works in tandem with CD86 to prime T cells. CD80 plays a role in induction of innate immune responses by activating NF-κB-signaling pathway in macrophages. CD80 is thus regarded as promising therapeutic targets for autoimmune diseases and various carcinomas.

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| | |
|-------------------------------------|---|
| Form | Lyophilized |
| Molecular Mass | The protein has a calculated MW of 25.6 kDa. The protein migrates as 40-55 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation. |
| N-terminal Sequence Analysis | Val 38 |
| Endotoxin | < 1.0 EU/ µg by the LAL method. |
| Purity | > 95 % as determined by SDS-PAGE |
| Characteristic | <p>Disulfide-linked homodimer</p> <p>Labeled with FITC via amines</p> <p>Excitation source: 488 nm spectral line, argon-ion laser</p> <p>Excitation Wavelength: 488 nm</p> <p>Emission Wavelength: 535 nm</p> |
| Storage | <p>For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower.</p> <p>Please avoid repeated freeze-thaw cycles.</p> <p>This product is stable after storage at:</p> <p>-20 to -70 centigrade for 12 months in lyophilized state;</p> <p>-70 centigrade for 3 months under sterile conditions after reconstitution.</p> |
| Storage Buffer | Lyophilized from 0.22 µm filtered solution in PBS, pH7.4, 10% trehalose. |
| Reconstitution | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 µg/µL. Centrifuge the vial at 4 centigrade before opening to recover the entire contents. |

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Conjugation FITC

GENE INFORMATION

Gene Name Cd80

Official Symbol Cd80

Synonyms CD80; CD80 antigen; T-lymphocyte activation antigen CD80; B7 protein; activation B7-1 antigen; B71; Ly53; TSA1; Cd28I; Ly-53; MIC17

Gene ID 12519

mRNA Refseq NM_009855

Protein Refseq NP_033985

UniProt ID Q00609

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