

# Recombinant Mouse Cd80 Protein, His-tagged, Alexa Fluor 555 conjugated

Cat. No. Cd80-5171MAF555 Lot. No. (See product label)

## SPECIFICATION

### Product Overview

Alexa Fluor 555 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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<b>Form</b>	Lyophilized
<b>Molecular Mass</b>	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.
<b>N-terminal Sequence Analysis</b>	Val 38
<b>Endotoxin</b>	< 1.0 EU/ µg by the LAL method.
<b>Purity</b>	> 95 % as determined by SDS-PAGE
<b>Characteristic</b>	<p>Disulfide-linked homodimer</p> <p>Labeled with Alexa Fluor 555 via amines</p> <p>With an excitation and emission maximum of 555/565 nm, Alexa Fluor 555 can be efficiently excited using a 543 nm He-Ne laser line and detected under standard TRITC/Cy3 filters.</p>
<b>Storage</b>	<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> <ul style="list-style-type: none"> <li>-20 to -70 centigrade for 12 months in lyophilized state;</li> <li>-70 centigrade for 3 months under sterile conditions after reconstitution.</li> </ul>
<b>Storage Buffer</b>	Lyophilized from 0.22 µm filtered solution in PBS, pH7.4, 10% trehalose.
<b>Reconstitution</b>	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** Alexa Fluor 555

## 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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