# **Recombinant Mouse CTLA4 Protein (His Tag)**

### Catalog No. PKSM041001

*Note:* Centrifuge before opening to ensure complete recovery of vial contents.

Description	
Synonyms	Cytotoxic T-lymphocyte protein 4;Cytotoxic T-lymphocyte-associated antigen 4;CTLA-4;CD152;Ctla4
Species	Mouse
Expression Host	HEK293 Cells
Sequence	Ala37-Asp161
Accession	P09793
Calculated Molecular Weight	14.6 kDa
Observed molecular weight	17-30 kDa
Tag	C-His
Bioactivity	Not validated for activity
Properties	
Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.
Data	



>95 % as determined by reducing SDS-PAGE.

## Background

Mouse Cytotoxic Tlymphocyte 4(CTLA-4,CD152), is a type I transmembrane T cell inhibitory molecule. mouse CTLA4

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cDNA encodes 223 amino acids (aa) including a 35 aa signal sequence, a 126 aa extracellular domain (ECD) with one Iglike V-type domain, a 21 aa transmembrane (TM) sequence, and a 41 aa cytoplasmic sequence. Within the ECD, Mouse CTLA-4 shares 68% aa sequence identity with human. CTLA4 is similar to the T cell costimulatory protein CD28 since both of the molecules bind to CD80 and CD86 on antigen-presenting cells. CTLA4 transmits an inhibitory signal to T cells, whereas CD28 transmits a stimulatory signal. Intracellular CTLA4 is also found inregulatory T cells and may play an important role in their functions. T cell activation through the T cell receptor and CD28 leads to increased expression of CTLA4. Genetic variations of CTLA4 have been associated with susceptibility to systemic lupus erythematosus(SLE), Gravesdisease(GRD), Celiac disease type3(CELIAC3) and Hepatitis B virus infection(HBVinfection).

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