**General Information**

**Gene Name Synonym:**
Cd152; Ctl4-; Ly-56

**Protein Construction:**
A DNA sequence encoding the extracellular domain of mouse CTLA4 (NP_033973.2) (Met 1-Phe 162) was fused with the Fc region of human IgG1 at the C-terminus.

**Source:** Mouse

**Expression Host:** HEK293 Cells

**QC Testing**

**Purity:** > 95 % as determined by SDS-PAGE

**Bio-Activity:**
Measured by its ability to inhibit IL-2 secretion by stimulated Jurkat human acute T cell leukemia cells. The Ed50 for this effect is 0.05-0.3μg/mL when stimulated with 1 μg/mL Recombinant Human B7-1/CD80.

**Endotoxin:**< 1.0 EU per μg of the protein as determined by the LAL method

**Stability:**
Samples are stable for up to twelve months from date of receipt at -70°C

**Predicted N terminal:** Glu 36

**Molecular Mass:**
The secreted recombinant mouse CTLA4/Fc is a disulfide-linked homodimeric protein. The reduced monomer comprises 368 amino acids and has a predicted molecular mass of 41 kDa. As a result of glycosylation, the apparent molecular mass of rm CTLA4/Fc monomer is approximately 55 kDa in SDS-PAGE under reducing conditions.

**Formulation:**
Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

**Usage Guide**

**Storage:**
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

**Reconstitution:**
Detailed reconstitution instructions are sent along with the products.

**Protein Description**

Cytotoxic T-lymphocyte protein 4, also known as CTLA4 and CD152, is a single-pass type I membrane protein and a member of the immunoglobulin superfamily. It is the second member of the CD28 receptor family. The ligands or counterreceptors for these two proteins are the B7 family members, CD80 (B7-1) and CD86 (B7-2). CTLA4 transmits an inhibitory signal to T cells, whereas CD28 transmits a stimulatory signal. Intracellular CTLA4 is also found in regulatory T cells and may play an important role in their functions. CD152 or cytotoxic T lymphocyte antigen-4 (CTLA-4) is an essential receptor involved in the negative regulation of T cell activation. Because of its profound inhibitory role, CD152 has been considered a sound susceptible candidate in autoimmunity and a persuasive target for cancer immunotherapy. In particular, recent evidence suggests that CD152 is also important in the homeostasis and function of a population of suppressive cells, termed regulatory T cells (Treg).

**References**