

DESCRIPTION

Source Human embryonic kidney cell, HEK293-derived
Val35-Asn242, with a C-terminal 6-His tag
Accession # XP_005548122

N-terminal Sequence Analysis Val35

Predicted Molecular Mass 25 kDa

SPECIFICATIONS

SDS-PAGE 35-45 kDa, reducing conditions

Activity Measured by its binding ability in a functional ELISA.
When Recombinant Cynomolgus Monkey B7-1/CD80 is immobilized at 0.5 µg/mL (100 µL/well), the concentration of Recombinant Human CTLA-4 Fc Chimera (Catalog # 7268-CT) that produces 50% of the optimal binding response is approximately 5-30 ng/mL.

Endotoxin Level <0.10 EU per 1 µg of the protein by the LAL method.

Purity >95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

Formulation Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

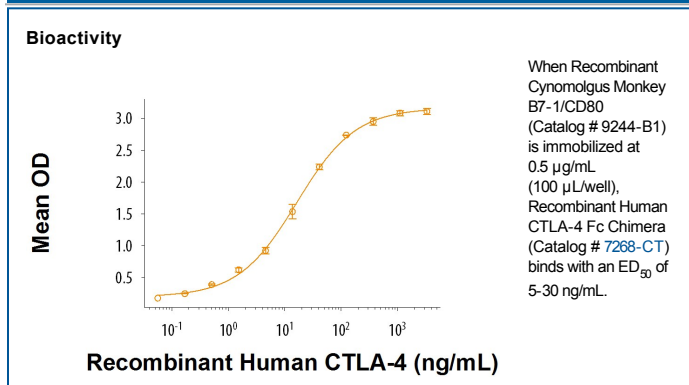
Reconstitution Reconstitute at 1 mg/mL in PBS.

Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

DATA



BACKGROUND

B7-1/CD80 and B7-2/CD86, together with their receptors CD28 and CTLA-4, constitute one of the dominant co-stimulatory pathways that regulate T- and B-cell responses (1). Although both CTLA-4 and CD28 can bind to the same ligands, CTLA-4 binds to B7-1 and B7-2 with a 20 - 100 fold higher affinity than CD28 and is involved in the down-regulation of the immune response (2-6). Mature cynomolgus B7-1 consists of a 208 aa extracellular domain (ECD) with two immunoglobulin-like domains, a 21 aa transmembrane domain, and a 25 aa cytoplasmic domain (7). Within the ECD, cynomolgus B7-1 shares 97%, 51%, and 54% aa sequence identity with human, mouse, and rat B7-1, respectively. Both human and mouse B7-1 and B7-2 can bind to either human or mouse CD28 and CTLA-4 (1). B7-1 is expressed on activated B cells, activated T cells, and macrophages. B7-2 is constitutively expressed on interdigitating dendritic cells, Langerhans cells, peripheral blood dendritic cells, memory B cells, and germinal center B cells (2).

References:

1. Ville, S. *et al.* (2015) *Front. Immunol.* **6**:411.
2. Azuma, M. *et al.* (1993) *Nature* **366**:76.
3. Freeman, G.J. *et al.* (1993) *Science* **262**:909.
4. Chen, C. *et al.* (1994) *J. Immunol.* **152**:4929.
5. Freeman, G.J. *et al.* (1993) *J. Exp. Med.* **178**:2185.
6. Lanier, L. *et al.* (1995) *J. Immunol.* **154**:97.
7. Freeman, G.J. *et al.* (1989) *J. Immunol.* **143**:2714.