



# Recombinant Protein Technical Manual

## Recombinant Mouse CD80/B7 Protein (His Tag)

RPES0125

### Product Data:

**Product SKU:** RPES0125

**Size:** 10µg

**Species:** Mouse

**Expression host:** Human Cells

**Uniprot:** Q00609

### Protein Information:

**Molecular Mass:** 24.6 kDa

**AP Molecular Mass:** 38-55 kDa

**Tag:** C-6His

**Bio-activity:**

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

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

**Storage:** 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 PBS, pH7.4.

**Reconstitution:** Please refer to it for detailed information.

**Application:**

**Synonyms:** T-lymphocyte activation antigen CD80; Activation B7 antigen; B7; CD80;Cd28l;Ly-53;Ly53;MIC17;TSA1

## Immunogen Information:

**Sequence:** Val38-Asn246

## Background:

Cluster of Differentiation 80, also called B7, is a member of cell surface immunoglobulin superfamily which plays key, yet distinct roles in the activation of T cells. Mouse CD80 consists of an extracellular domain (ECD) with two immunoglobulin-like domains, transmembrane segment, and cytoplasmic domain. B7/CD80 and B7-2/CD86, together with their receptors CD28 and CTLA4, constitute one of the dominant co-stimulatory pathways that regulate T- and B- cell responses. CD80 is mostly expressed on the surface of antigen-presenting cells including activated B cells, macrophages and dendritic cells. Although both CTLA-4 and CD28 can bind to the same ligands, CTLA-4 binds to B7 and B7-2 with a 2000 fold higher affinity than CD28 and is involved in the down-regulation of the immune response.