

**DESCRIPTION**

**Source** Mouse myeloma cell line, NS0-derived  
Leu20-Arg219, with a C-terminal 6-His tag  
Accession # Q9WUL5

**N-terminal Sequence Analysis** Leu20

**Predicted Molecular Mass** 23 kDa

**SPECIFICATIONS**

**SDS-PAGE** 28-52 kDa, reducing conditions

**Activity** Measured by its binding ability in a functional ELISA.  
When Recombinant Mouse PD-L2/B7-DC is coated at 0.4 µg/mL, 100 µL/well, Recombinant Mouse PD-1 Fc Chimera (Catalog # 1021-PD) binds with a typical ED<sub>50</sub> of 3-18 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**

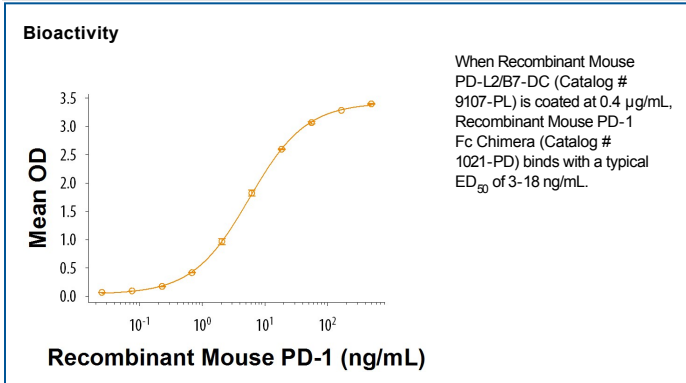
**Reconstitution** Reconstitute at 200 µg/mL in PBS.

**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**

Programmed Death Ligand 2 (PD-L2), also known as B7-DC and butyrophilin-like protein, is a member of the B7 family of proteins that provide signals for regulating T-cell activation and tolerance (1). Mature mouse PD-L2 consists of a 199 amino acid (aa) extracellular domain (ECD) with one V-like and one C-like Ig domain, a 23 aa transmembrane segment, and a 5 aa cytoplasmic domain (2, 3). Within the ECD, mouse and human PD-L2 share 72% aa sequence identity. PD-L2 is expressed on dendritic cells, subsets of activated CD4+ and CD8+ T cells, and memory B cells that differentiate into plasma cells (3-5). At inflammatory sites such as rheumatoid arthritis, allergen exposure, and virus infection, PD-L2 is upregulated on synoviocytes, infiltrating macrophages, dendritic cells, and airway epithelial cells (6-10). PD-L2, along with B7-H1/PD-L1, binds to T cell PD-1 where it promotes IFN- $\gamma$  production and CD40 Ligand up-regulation while inhibiting IL-4 production (2, 3, 11, 12). In addition, PD-L2 binds to RGM-B on macrophages and alveolar epithelial cells, supporting respiratory immune tolerance (13). In asthma, PD-L2 suppresses IL-5 and IL-13 production, promotes IL-12 production by dendritic cells, and supports allergen-induced airway hyper-responsiveness and mucus production (8, 10).

**References:**

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