

Certificate of Analysis

B7-H1/PD-L1, extracellular domain (Program cell death 1 ligand 1)

Description: Recombinant human PD-L1/CD274, extracellular domain is produced in E. coli. The final protein sequence contains F19-H240 of human PD-L1 fused to a polyhistidine tag on the carboxyl terminus.

Background: PD-L1 is a ligand for program cell death 1 (PD1). PD-L1 suppresses immune response against tumor cells upon binding to PD1 receptor. PD-L1 is expressed on T and B cells, macrophages, dendritic cells, and some nonimmune cells. Binding of PD-L1 to its receptor, PD1 on the surface of T cells results in deactivation of T cells. Blockade of PD-1 or PD-L1 by specific antibodies leads to enhanced antitumor immunity of T cells.

Synonyms: Program cell death 1 ligand 1, PDCD1 ligand 1

Sequence :MPGFTVTVPKDLYVVEYGSNMTIECKFPVEKQLDLAALIVYWEMED
KNIQFVHGEEEDLKVQHSSYRQRARLLKDQLSLGNAALQITDVKLQDAGVYRCM
ISYGGADYKRITVKVNAPYNKINQRILVDPVTSEHELTCQAEGYPKAEVIWTSS
DHQVLSGKTTTTNSKREEKLFNVTSTLRINTTTNEIFYCTFRRLDPEENHTAELVI
PELPLAHPNERTHHHHHH

Accession #: [Q9NZQ7](#)

Quality control: Verified by disulfide mapping and Mass Spectrometry analyses.

Purity: >95% by SDS-PAGE gel

Product Source: PD-L1 was produced in E. coli cells transformed with the coding sequence of the extracellular domain of human PD-L1 gene.

Formulation: Sterile filtered through a 0.2 micron filter in 20 mM Tris buffer at pH8.

Usage: FOR LABORATORY RESEARCH USE ONLY.

Storage/Stability: Avoid repeated freeze-thaw cycles. 12 months at -20 C to -80 C. 1 month at 2 C to 8 C.

References:

1. Hamanishi, Junzo, et al. "Programmed cell death 1 ligand 1 and tumor-infiltrating CD8+ T lymphocytes are prognostic factors of human ovarian

- cancer." *Proceedings of the National Academy of Sciences* 104.9 (2007): 3360-3365.
- Lin, David Yin-wei, et al. "The PD-1/PD-L1 complex resembles the antigen-binding Fv domains of antibodies and T cell receptors." *Proceedings of the National Academy of Sciences* 105.8 (2008): 3011-3016.

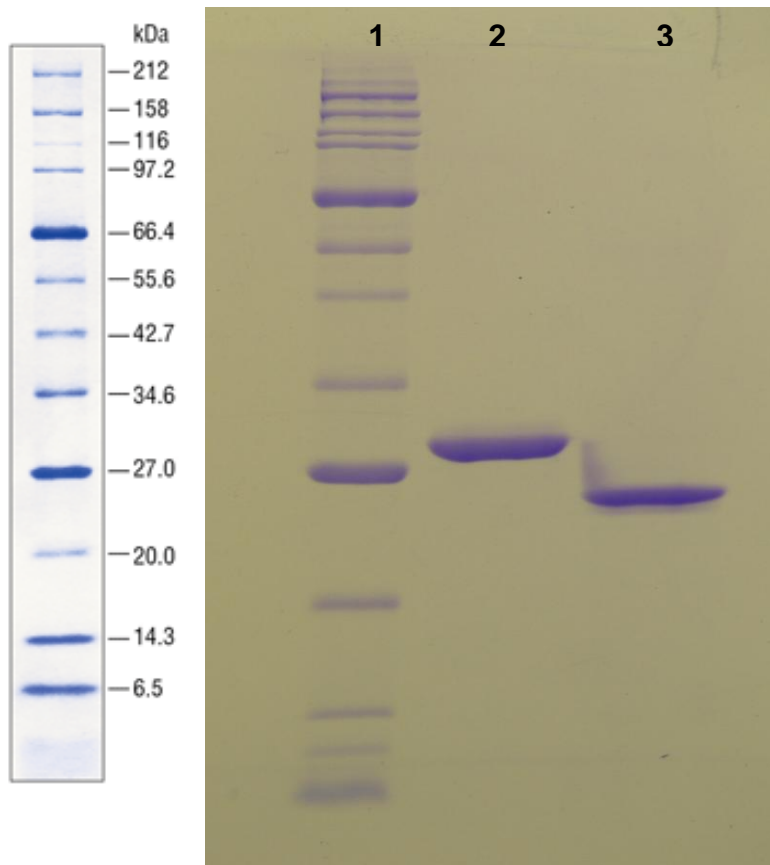


Figure 1. B7-H1/PD-L1 SDS PAGE gel. Lane 1, protein marker; lane 2, B7-H1/PD-L1 with a mass of 30 kDa on SDS-PAGE under reducing environment; lane 3, B7-H1/PD-L1 with a mass of 26 kDa on SDS-PAGE under oxidized environment.

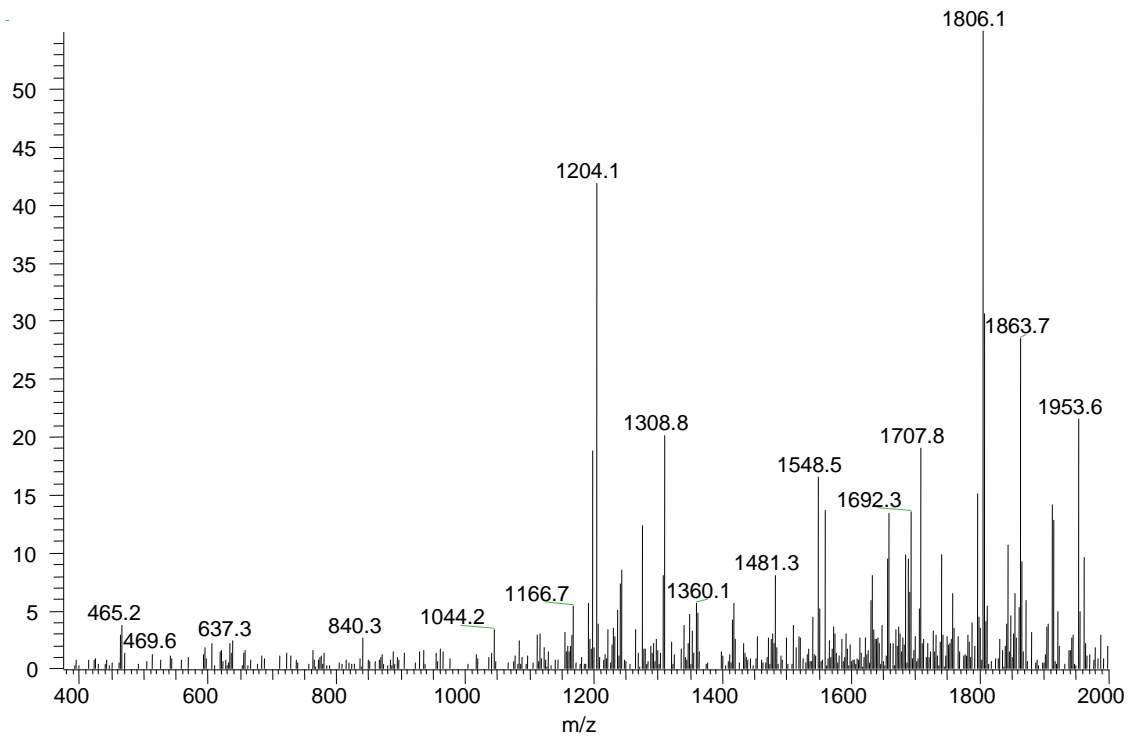


Figure 2. MSMS spectrum of two peptides ILVVDPVTSEHELTCQAEGYPK 126-147 and INTTNEIFYCTFR 184-197 from PD-L1 linked through inter chain disulfide bond between C140 and C194.