

APA789Hu61 100µg

Active Programmed Cell Death Protein 1 Ligand 2 (PDL2)

Organism Species: *Homo sapiens (Human)*

Instruction manual

FOR RESEARCH USE ONLY

NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

13th Edition (Revised in Aug, 2023)

[PROPERTIES]

Source: Eukaryotic expression.

Host: 293F cell

Residues: Leu20~Thr220

Tags: N-terminal His-tag

Purity: >95%

Endotoxin Level: <1.0EU per 1µg (determined by the LAL method).

Buffer Formulation: PBS, pH7.4, containing 5% trehalose.

Applications: Activity Assays.

(May be suitable for use in other assays to be determined by the end user.)

Predicted isoelectric point: 6.7

Predicted Molecular Mass: 24.3kDa

Accurate Molecular Mass: 35-55kDa as determined by SDS-PAGE reducing conditions.

Phenomenon explanation:

The possible reasons that the actual band size differs from the predicted are as follows:

1. Splice variants: Alternative splicing may create different sized proteins from the same gene.
2. Relative charge: The composition of amino acids may affects the charge of the protein.
3. Post-translational modification: Phosphorylation, glycosylation, methylation etc.
4. Post-translation cleavage: Many proteins are synthesized as pro-proteins, and then cleaved to give the active form.
5. Polymerization of the target protein: Dimerization, multimerization etc.

[USAGE]

Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not

vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.

Store at 2-8°C for one month.

Aliquot and store at -80°C for 12 months.

Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

[SEQUENCE]

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          L FTVTPKELY IIEHGSNVTL ECNFDTGSHV
NLGAIASLQ KVENDTSPHR ERATLLEEQL PLGKASFHIP QVQVRDEGQY
QCIIYGVAV DYKYLTLKVK ASYRKINTHI LKVPETDEVE LTCQATGYPL
AEVSWPNVSV PANTSHSRTP EGLYQVTSVL RLKPPPGRNF SCVFWNTHVR
ELTLASIDLQ SQMEPRTHPT
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[ACTIVITY]

Programmed Cell Death 1 Ligand 2 (also known as PD-L2, B7-DC) is a member of the B7 family of proteins that provide signals for regulating T-cell activation and tolerance. Mature human PD-L2 consists of a 201 amino acid (aa) extracellular domain (ECD) with one V-like and one C-like Ig domain, a 21 aa transmembrane segment, and a 32 aa cytoplasmic domain. PD-L2 has also been designated as CD273 (cluster of differentiation 273). PD-L2 is an immune checkpoint receptor ligand which plays a role in negative regulation of the adaptive immune response.

PD-L2 is one of two known ligands for Programmed cell death protein 1 (PD-1), thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human PD-1 and recombinant human PD-L2. Briefly, biotin-linked PD-L2 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100µl were then transferred to PD-1-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST 3 times and incubation with Streptavidin-HRP for 30min, then wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50µl stop solution to the wells and read at 450nm immediately. The

binding activity of PD-1 and PD-L2 was shown in Figure 1, and this effect was in a dose dependent manner.

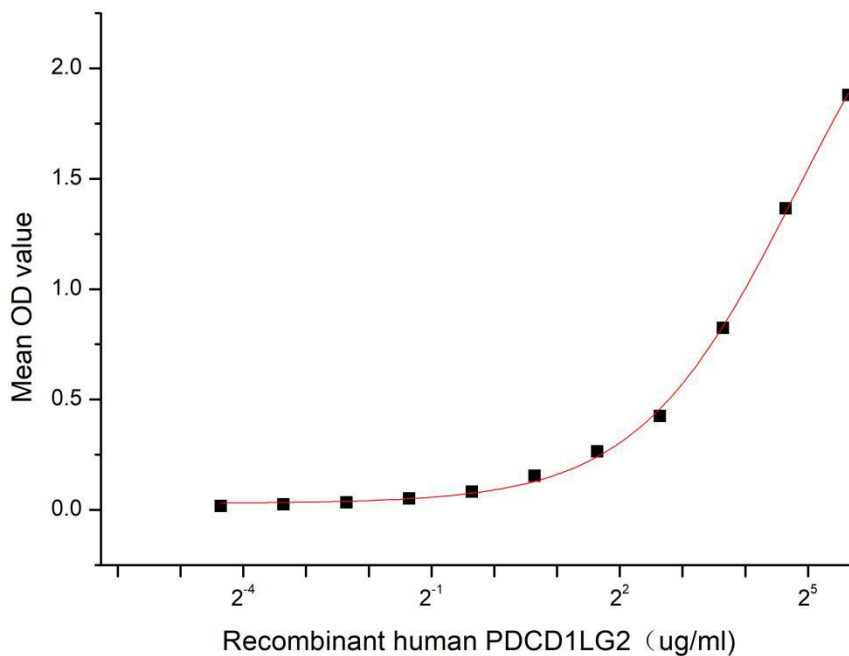


Figure 1. The binding activity of recombinant human PD-L2 and recombinant human PD-1

[IDENTIFICATION]

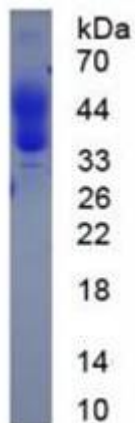


Figure 2. SDS-PAGE

Sample: Active recombinant PDL2, Human

[IMPORTANT NOTE]

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.