

For Research Use Only

Recombinant Human PD-1/CD279 protein (His Tag)



Catalog Number: Eg0974

Basic Information

Species:

Human

Purity:

>95 %, SDS-PAGE

Tag:

His Tag

EC50:

11-43 ng/mL

Technical Specifications

Purity:

>95 %, SDS-PAGE

Endotoxin Level:

<0.1 EU/ μ g protein, LAL method

Source:

HEK293-derived Human PD-1 protein Phe24-Gln167 (Accession# Q15116) with His tag at the C-terminus.

GenelD:

5133

Accession:

Q15116

Predicted Molecular Mass:

16.9 kDa

SDS-PAGE:

26-38 kDa, reducing (R) conditions

Formulation:

Lyophilized from 0.22 μ m filtered solution in PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.

Biological Activity

Immobilized Human PD-1 (His tag) at 2 μ g/mL (100 μ L/well) can bind Human PD-L1 (hFc tag) with a linear range of 11-43 ng/mL.

Storage and Shipping

Storage:

It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

- Until expiry date, -20°C to -80°C as lyophilized proteins.
- 3 months, -20°C to -80°C under sterile conditions after reconstitution.

Shipping:

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

Reconstitution

Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.

Background

Programmed cell death 1 (PD-1, also known as CD279) is an immunoinhibitory receptor that belongs to the CD28/CTLA-4 subfamily of the Ig superfamily. It is a 288 amino acid (aa) type I transmembrane protein composed of one Ig superfamily domain, a stalk, a transmembrane domain, and an intracellular domain containing an immunoreceptor tyrosine-based inhibitory motif (ITIM) as well as an immunoreceptor tyrosine-based switch motif (ITSM). PD-1 is expressed during thymic development and is induced in a variety of hematopoietic cells in the periphery by antigen receptor signaling and cytokines. Engagement of PD-1 by its ligands PD-L1 or PD-L2 transduces a signal that inhibits T-cell proliferation, cytokine production, and cytolytic function. It is critical for the regulation of T-cell function during immunity and tolerance. Blockade of the PD-1/PD-L1 pathway has been developed for cancer immunotherapy.

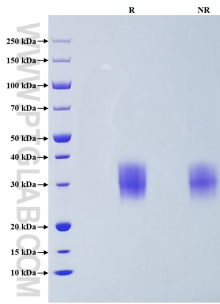
References

1. Mary E Keir, et al. (2008) Annu Rev Immunol. 26:677-704.
2. James L Riley. (2009) Immunol Rev. 229(1):114-25.
3. Loise M Francisco, et al. (2010) Immunol Rev. 236:219-42.
4. Suzanne L Topalian, et al. (2012) N Engl J Med. 366(26):2443-54.
5. Yanyan Han, et al. (2020) Am J Cancer Res. 10(3):727-742.

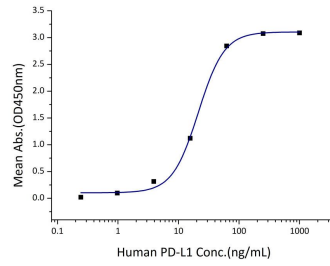
Synonyms

CD279, PD1, PD-1, hPD 1, hPD L

Selected Validation Data



Purity of Recombinant Human PD-1 was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) and non-reducing (NR) conditions and stained using Coomassie blue.



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For technical support and original validation data for this product please contact

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