

Product datasheet

Recombinant human PD1 protein (Active) ab174035

[9 Images](#)

Description

Product name	Recombinant human PD1 protein (Active)	
Biological activity	<p>Measured by its binding ability in a functional ELISA.</p> <p>Immobilized PD1 at 10 µg/ml (100 µl/well) can bind recombinant Human B7-H1 Fc chimera with a linear range of 0.005- 0.4 µg/ml.</p>	
Purity	<p>> 95 % SDS-PAGE.</p> <p>>90% as determined by SEC-HPLC.</p>	
Endotoxin level	< 1.000 Eu/µg	
Expression system	HEK 293 cells	
Accession	Q15116	
Protein length	Protein fragment	
Animal free	No	
Nature	Recombinant	
Species	Human	
Sequence	<p>LDSPDR PWNPPTFSPA LLVVTEGDNA TFTCSFSNTS ESFVLNWyRM SPSNQTDKLA AFPEDRSQPG QDCRFRVTQL PNGRDFHMSV VRARRNDSGT YLCGAISLAP KAIKESLRA ELRVTERRAE VPTAHPSPSP RPAGQFQ</p>	
Predicted molecular weight	17 kDa including tags	
Amino acids	25 to 167	
Tags	His tag C-Terminus	
Additional sequence information	(NP_005009.2)	

Specifications

Our [Abpromise guarantee](#) covers the use of **ab174035** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	HPLC
	SDS-PAGE
	Functional Studies

ELISA

Form

Lyophilized

Additional notes

For long term storage, store at lyophilized state at -20°C or lower. After reconstitution, store under sterile conditions for 3 months at -70°C or 12 months at 4-8°C at lyophilized state. Avoid repeated freeze-thaw cycles.

Preparation and Storage

Stability and Storage

Shipped at 4°C. Store at 4°C prior to reconstitution. Store at -20°C or -80°C. Please see notes section.

pH: 7.40

Constituents: PBS, 5% Trehalose

This product is an active protein and may elicit a biological response in vivo, handle with caution.

Reconstitution

It is recommended to reconstitute the lyophilized protein with 500µL sterile deionized water to a stock solution of 200 µg/mL.

General Info

Function

Possible cell death inducer, in association with other factors.

Involvement in disease

Genetic variation in PDCD1 is associated with susceptibility to systemic lupus erythematosus type 2 (SLEB2) [MIM:605218]. Systemic lupus erythematosus is a chronic, inflammatory and often febrile multisystemic disorder of connective tissue. It affects principally the skin, joints, kidneys and serosal membranes. It is thought to represent a failure of the regulatory mechanisms of the autoimmune system.

Sequence similarities

Contains 1 Ig-like V-type (immunoglobulin-like) domain.

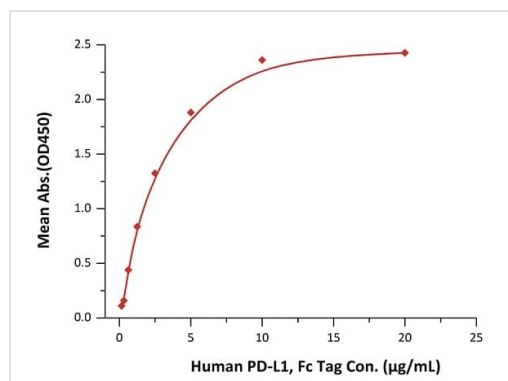
Developmental stage

Induced at programmed cell death.

Cellular localization

Membrane.

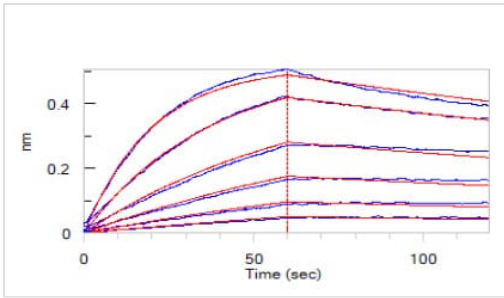
Images



Immobilized ab174035 at 0.2µg/mL (100 µL/well) binds Human PD-L1, Fc Tag.

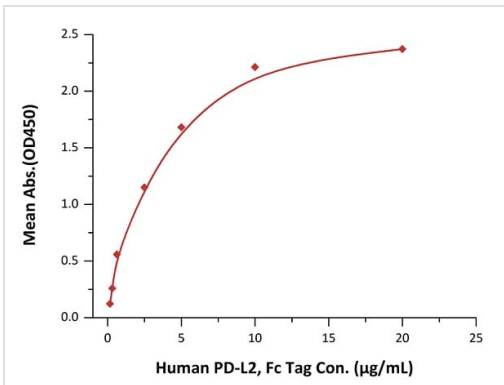
Linear range of 0.31-1.25 µg/mL (QC tested).

Functional Studies - Recombinant human PD1 protein (ab174035)



Functional Studies - Recombinant human PD1 protein (Active) (ab174035)

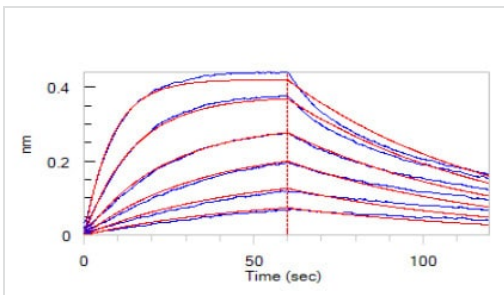
Loaded Human PD-1 (His Tag) (HPLC verified) on HIS1K Biosensor can bind Human PD-L2 (Fc Tag) (HPLC verified) with an affinity constant of 16.3 nM as determined in bli assay (ForteBio Octet Red96e) (QC tested).



Functional Studies - Recombinant human PD1 protein (ab174035)

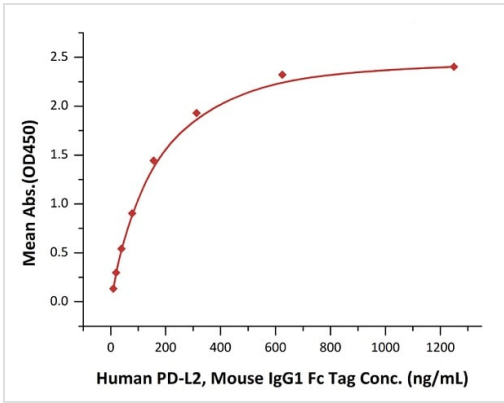
Immobilized ab174035 at 0.2 µg/mL (100 µl/well) binds Human PD-L2, Fc Tag.

Linear range of 0.16-2.5 µg/mL (QC tested).



Functional Studies - Recombinant human PD1 protein (Active) (ab174035)

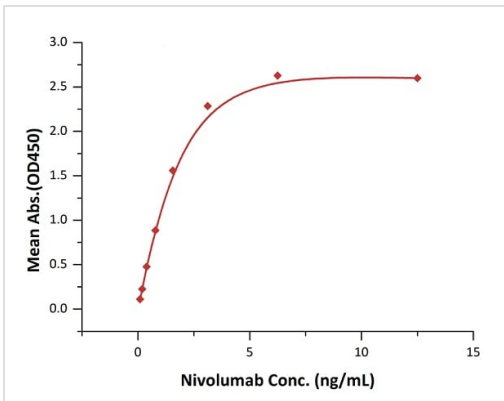
Loaded Human PD-1 (His Tag) (HPLC verified) on HIS1K Biosensor can bind Human PD-L1 (Fc Tag) (HPLC verified) with an affinity constant of 38.9 nM as determined in bli assay (ForteBio Octet Red96e) (QC tested).



Immobilized ab174035 at 2 µg/mL (100 µL/well) binds Human PD-L2, Mouse IgG1 Fc Tag.

Linear range of 10-156 ng/mL (Routinely tested).

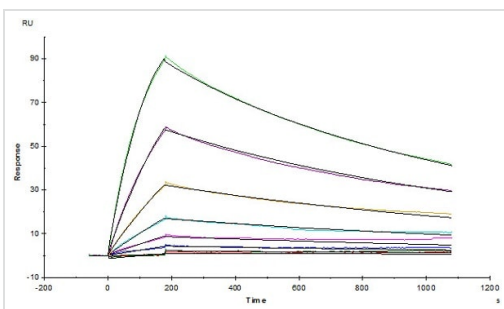
Functional Studies - Recombinant human PD1 protein (ab174035)



Immobilized ab174035 at 2 µg/mL (100 µL/well) binds Nivolumab.

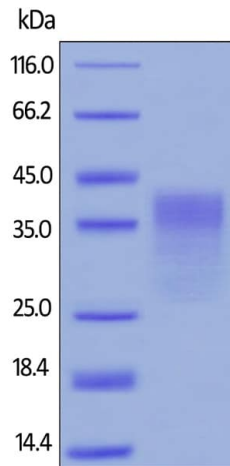
Linear range of 0.1-3 ng/mL (Routinely tested).

Functional Studies - Recombinant human PD1 protein (ab174035)



Opdivo(Nivolumab), captured on CM5 chip via anti-human IgG Fc antibodies surface, binds ab174035 with an affinity constant of 4.94 nM, as determined in an SPR assay (Biacore T200) (Routinely tested).

Functional Studies - Recombinant human PD1 protein (ab174035)

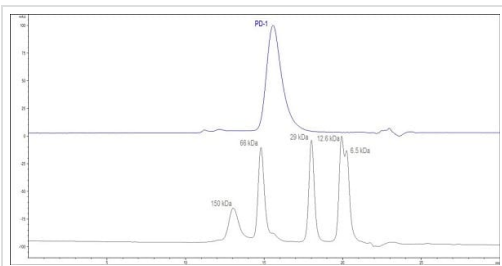


SDS-PAGE - Recombinant human PD1 protein
(ab174035)

Reduced ab174035 on SDS-PAGE, stained overnight with Coomassie Blue.

The purity of the protein is greater than 95%.

The protein migrates as 31-44kDa under reducing conditions, due to glycosylation.



HPLC - Recombinant human PD1 protein
(ab174035)

The purity of ab174035 was greater than 90%, as determined by SEC-HPLC.

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