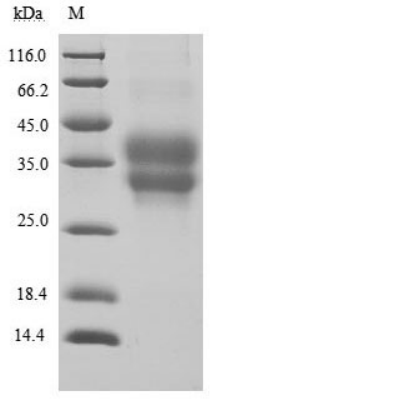
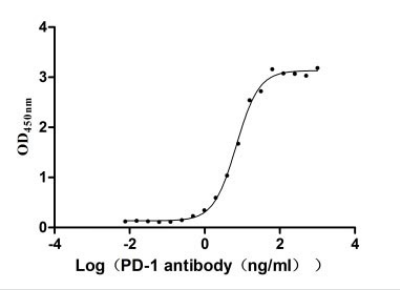
Recombinant Human Programmed cell death protein 1 (PDCD1), partial (Active)

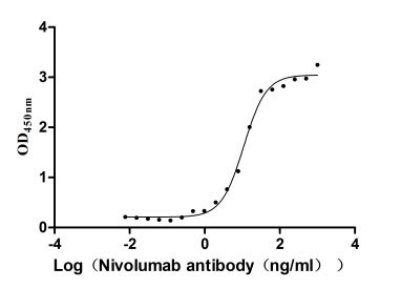
Product Code	CSB-MP619964HU1
Relevance	Inhibitory cell surface receptor involved in the regulation of T-cell function during immunity and tolerance. Upon ligand binding, inhibits T-cell effector functions in an antigen-specific manner. Possible cell death inducer, in association with other factors.
Abbreviation	Recombinant Human PDCD1 protein, partial (Active)
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	Q15116
Form	Lyophilized powder
Product Type	Others
Immunogen Species	Homo sapiens (Human)
Biological Activity	①Measured by its binding ability in a functional ELISA. Immobilized PD-1 at 2 μg/ml can bind Anti-PD-1 recombinant antibody, the EC_{50} of human PD-1 protein is 6.087-7.854 ng/ml.②Measured by its binding ability in a functional ELISA. Immobilized PD-1 at 2 μg/ml can bind Nivolumab, the EC_{50} of human PD-1 protein is 9.713-12.39 ng/ml.
Purity	Greater than 95% as determined by SDS-PAGE. Greater than 95% as determined by SEC-HPLC.
Sequence	LDSPDRPWNPPTFSPALLVVTEGDNATFTCSFSNTSESFVLNWYRMSPSNQT DKLAAFPEDRSQPGQDCRFRVTQLPNGRDFHMSVVRARRNDSGTYLCGAISL APKAQIKESLRAELRVTERRAEVPTAHPSPSPRPAGQFQ
Research Area	Cancer
Source	Mammalian cell
Target Names	PDCD1
Expression Region	25-167aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	C-terminal 6xHis-tagged
Mol. Weight	18.2 kDa
Protein Length	Partial
Image	



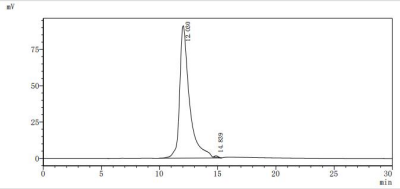
(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.



Activity
①Measured by its binding ability in a functional ELISA. Immobilized PD-1 at 2 μg/ml can bind Anti-PD-1 recombinant antibody, the EC_{50} of human PD-1 protein is 6.087-7.854 ng/ml.



Activity
②Measured by its binding ability in a functional ELISA. Immobilized PD-1 at 2 μg/ml can bind Nivolumab, the EC_{50} of human PD-1 protein is 9.713-12.39 ng/ml.



The purity of PDCD1 was greater than 95% as determined by SEC-HPLC

Description

CUSABIO used a DNA fragment (encoding amino acid 25-167 of the human PDCD1) with a C-terminal 6xHis-tag to generate the recombinant human PDCD1 protein in mammalian cells. This PDCD1 protein was subjected to SDS-PAGE under reducing conditions and presented a molecular mass band of about 30 kDa on the gel. Its purity is greater than 95%. The endotoxin content is less than 1.0 EU/ug as determined by the LAL method. It has been identified as an active protein through its binding ability with the anti-PDCD1 antibody or Nivolumab in the functional ELISA. Immobilized PD-1 at 2 μg/ml can bind Anti-PD-1 recombinant antibody with the EC_{50} of 6.087-7.854 ng/ml. Immobilized PD-1 at 2 μg/ml can bind Nivolumab with the EC_{50} of 9.713-12.39 ng/ml. And it is in stock now.

	PDCD1, also called PD1 or CD279, is an immunoinhibitory receptor expressed by all T cells during activation. It plays a critical role in balancing protective immunity and immunopathology, homeostasis, and tolerance. PD-1/PD-L1 pathway is responsible for cancer immune evasion and has become the target for cancer treatment.
Endotoxin	Less than 1.0 EU/ug as determined by LAL method.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.
Shelf Life	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.