

Programmed Cell Death Protein 1 (PD1) Active Protein | PD1 active protein

Active Programmed Cell Death Protein 1 (PD1)

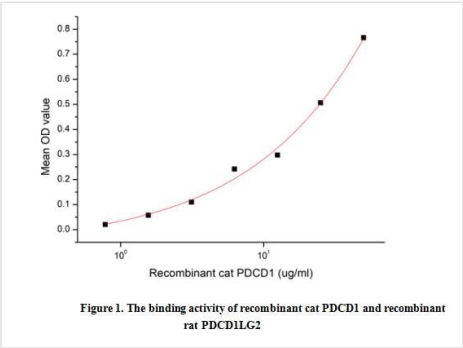
CATALOG # AAA161773	HOST 293F cell	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Programmed Cell Death Protein 1 (PD1); Active Programmed Cell Death Protein 1 (PD1); Programmed Cell Death Protein 1; PD1 active protein (eukaryotic; 293F cell); Cat; CD279; PDCD1; SLEB2; HPD1P4; PD1 active protein

PRODUCT SPECIFICATIONS

Host	293F cell
Purity/Purification	Greater than 90% by SDS-PAGE
Form/Format	Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Sequence	Pro31~Thr1 43
Applicable Applications for PD1 active protein	Activity Assay, Cell Culture
Species	Cat
Expression System	Eukaryotic expression
Tag	N-terminal His Tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Isoelectric Point	5.6
Research Area	Apoptosis, Immune molecule, Endocrinology, Autoimmunity
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months

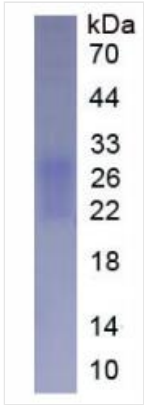


Bioactivity

PD-1 (Programmed Death-1 receptor), also known as CD279, is a receptor expressed on T cells responsible for modulating T cell activation. Like CTLA4, PD-1 is classified as an immune checkpoint inhibitory receptor. When PD-1 protein binds to PD-L1, it initiates a negative signaling cascade inhibiting activation of T cells. The cytoplasmic tail contains two tyrosine residues that form the immunoreceptor tyrosine-based inhibitory motif (ITIM) and immunoreceptor tyrosine-based switch motif (ITSM) that are important for mediating PD-1 signaling. Normally, PD-1 helps keep T cells from attacking other cells in the body. However, many cancers take advantage of this by expressing high amounts of PD-L1 allowing cancer cells to evade the body's own immune response. Blocking the PD-1:PD-L1 interaction has proven successful in treating many different cancer types. A functional binding ELISA assay was conducted to detect the interaction of recombinant cat PDCD1 and recombinant rat PDCD1LG2. Briefly, biotin-linked PDCD1 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to PDCD1LG2-coated microtiter wells and incubated for 1h at 37 degree 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 degree C. Finally, add 50 ul stop solution to the wells and read at 450 nm immediately. The binding activity of PDCD1 and PDCD1LG2 was shown in Figure 1, and this effect was in a dose dependent manner.

SDS-PAGE

Figure. SDS-PAGE



ADDITIONAL INFORMATION

Product Categories/Family for PD1 active protein	Active proteins
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NCBI AND UNIPROT INFORMATION

NCBI GeneID	100135770
UniProt Accession #	A9YUA6
Molecular Weight	22-30kDa

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.