

## Product datasheet for **TA355054**

### PD1 (PDCD1) Mouse Monoclonal Antibody [Clone ID: 4C7]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	4C7
Applications:	ELISA, FC, IF, IHC
Recommended Dilution:	WB: 1-2 $\mu$ g/mL.IHC starting at 5 $\mu$ g/mL.IF start at 20 $\mu$ g/mL. FC: 0.1 $\mu$ g/ml.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	PD-1 antibody was raised against the extracellular domain of human PD-1.
Formulation:	PD-1 Antibody is supplied in PBS containing 0.02% sodium azide.
Concentration:	1 mg/ml
Purification:	PD-1 Antibody is supplied as protein A purified IgG1.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	Predicted: 32 kDa; Observed: 38 kDa
Gene Name:	programmed cell death 1
Database Link:	<a href="#">NP_005009</a> <a href="#">Entrez Gene 5133 Human</a> <a href="#">Q15116</a>



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**Background:**

Cell-mediated immune responses are initiated by T lymphocytes that are themselves stimulated by cognate peptides bound to MHC molecules on antigen-presenting cells (APC). T-cell activation is generally self-limited as activated T cells express receptors such as PD-1 (also known as PDCD-1) that mediate inhibitory signals from the APC. PD-1 can bind two different but related ligands, PDL-1 and PDL-2. Upon binding to either of these ligands, signals generated by PD-1 inhibit the activation of the immune response in the absence of "danger signals" such as LPS or other molecules associated with bacteria or other pathogens. Evidence for this is seen in PD-1-null mice who exhibit hyperactivated immune systems and autoimmune diseases. PD-1 is thus one of a growing number of immune checkpoint proteins.

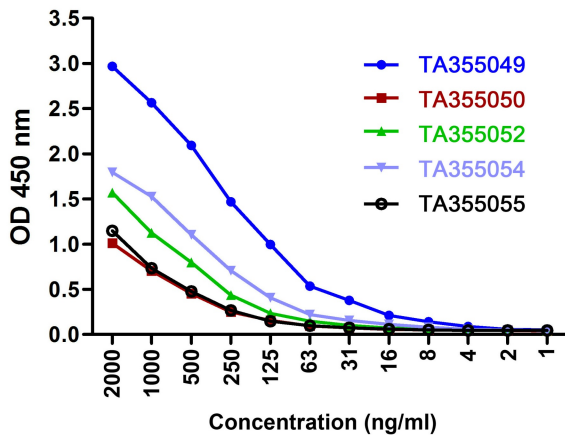
**Synonyms:**

CD279; hPD-1; hPD-I; PD1; SLEB2

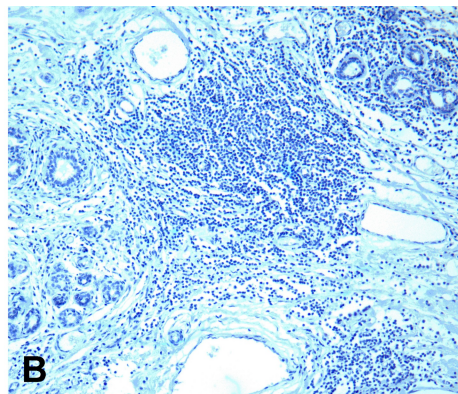
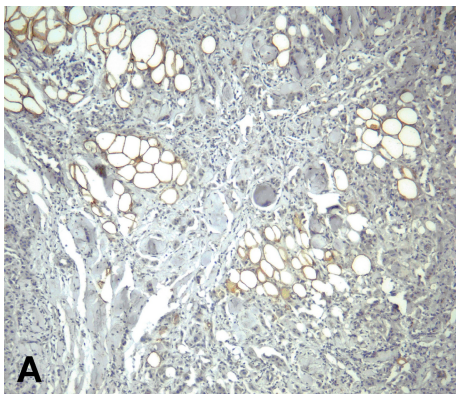
**Note:**

PD-1 antibody can be used for detection of PD-1 by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 5 µg/mL. For immunofluorescence start at 20 µg/mL. Flow cytometry at 0.1 µg/ml.

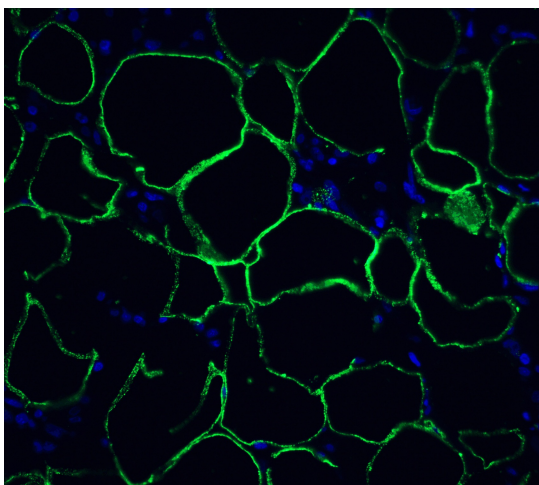
**Product images:**



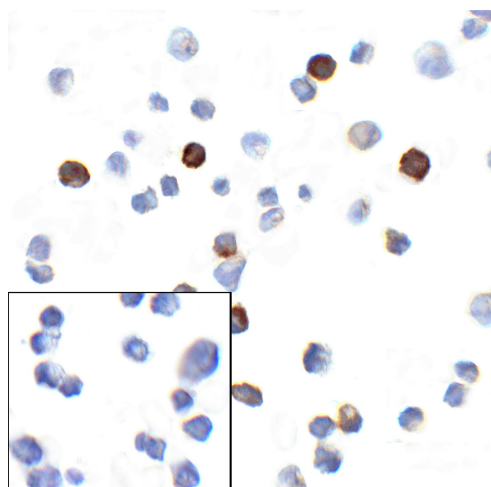
Titration curve analysis of PD-1 mAbs to detect recombinant PD-1 in ELISA with [TA355049], [TA355050], [TA355052], TA355054, and [TA355055] abs at decreasing concentrations.



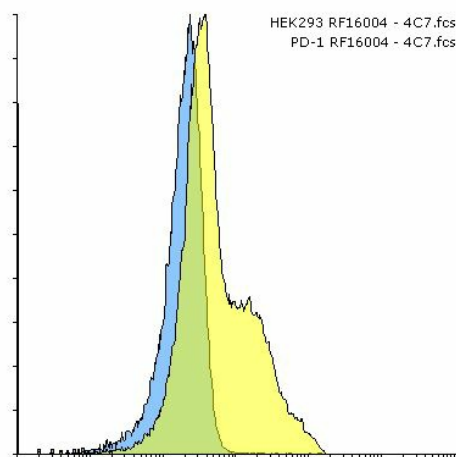
(A) Immunohistochemistry of PD-1 in human breast cancer tissue with PD-1 [4C7] antibody at 10ug/ml. (B) Immunohistochemistry in human breast cancer tissue with control mouse IgG staining at 10ug/ml.



Immunofluorescence of PD-1 in human breast cancer tissue with PD-1 [4C7] antibody at 10ug/ml.



Immunocytochemistry of PD-1 in transfected 293 cells with PD-1 [4C7] antibody at 10ug/ml. Lower left: Immunocytochemistry in transfected 293 cells with control mouse IgG antibody at 10ug/ml.



Flow cytometry analysis of PD-1 transfected 293 cells using PD-1 [4C7] antibody at 1ug/ml. Blue: untransfected cells, Yellow: PD-1 transfected cells.