

# Product Datasheet

## PD-1 Antibody (4F12) - BSA Free NBP1-04328

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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**NBP1-04328**

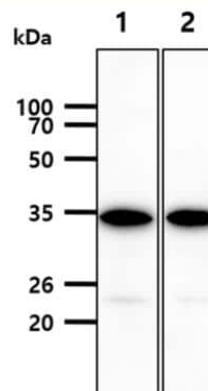
PD-1 Antibody (4F12) - BSA Free

Product Information	
<b>Unit Size</b>	0.1 ml
<b>Concentration</b>	1.0 mg/ml
<b>Storage</b>	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
<b>Clonality</b>	Monoclonal
<b>Clone</b>	4F12
<b>Preservative</b>	0.02% Sodium Azide
<b>Isotype</b>	IgG2b Kappa
<b>Purity</b>	Protein G purified
<b>Buffer</b>	PBS (pH 7.4), 10% Glycerol
Product Description	
<b>Description</b>	Novus Biologicals Mouse PD-1 Antibody (4F12) - BSA Free (NBP1-04328) is a monoclonal antibody validated for use in WB, ELISA, Flow and ICC/IF. Anti-PD-1 Antibody: Cited in 1 publication. All Novus Biologicals antibodies are covered by our 100% guarantee.
<b>Host</b>	Mouse
<b>Gene ID</b>	5133
<b>Gene Symbol</b>	PDCD1
<b>Species</b>	Human, Canine
<b>Reactivity Notes</b>	Use in Canine reported in scientific literature (PMID:34923192) .
<b>Immunogen</b>	Recombinant human PD-1 (21-167aa) purified from E. coli
Product Application Details	
<b>Applications</b>	Western Blot, ELISA, Flow Cytometry, Immunocytochemistry/ Immunofluorescence
<b>Recommended Dilutions</b>	Western Blot 1:500-1:1000, Flow Cytometry 2-5ug , ELISA 1:100-1:2000, Immunocytochemistry/ Immunofluorescence 1:100

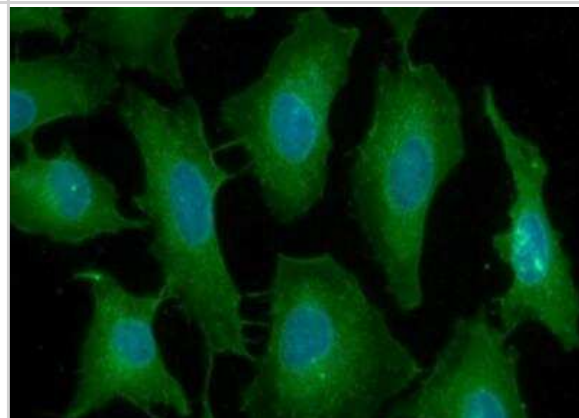


## Images

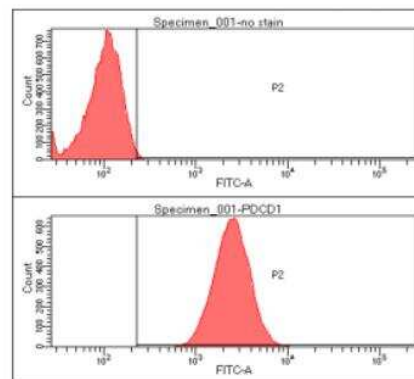
Western Blot: PD-1 Antibody (4F12) [NBP1-04328] - The cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human PDCD1 antibody (1:3000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system. Lane 1.: 293T cell lysate, Lane 2.: Raji cell lysate



Immunocytochemistry/Immunofluorescence: PD-1 Antibody (4F12) [NBP1-04328] - HeLa cells line, stained with DAPI (Blue) for nucleus staining and monoclonal anti-human PDCD1 antibody (1:100) with goat anti-mouse IgG-Alexa fluor 488 conjugate (Green).



Flow Cytometry: PD-1 Antibody (4F12) [NBP1-04328] - Flow cytometry analysis of PDCD1 in HeLa cell line, staining at 2-5ug for 1x10<sup>6</sup> cells. The secondary antibody used goat anti-mouse IgG Alexa fluor 488 conjugate.



## Publications

Pinard CJ, Hocker SE, Poon AC et al. Evaluation of PD-1 and PD-L1 expression in canine urothelial carcinoma cell lines Veterinary immunology and immunopathology 2022-01-01 [PMID: 34923192] (ICC/IF, WB, Canine)



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### **Products Related to NBP1-04328**

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NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB7539	Goat anti-Mouse IgG (H+L) Secondary Antibody [HRP]
NBP1-43317-0.5mg	Mouse IgG2b Kappa Light Chain Isotype Control (MG2b)

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### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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