

## Product datasheet

# Anti-PD1 antibody [NAT105] ab234444

Recombinant

[1 References](#) [5 Images](#)

### Overview

<b>Product name</b>	Anti-PD1 antibody [NAT105]
<b>Description</b>	Mouse monoclonal [NAT105] to PD1
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt (Intra), ICC/IF, WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Tissue, cells or virus. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: MOLT-4 treated with 500 ng/ml ionomycin and 10 ng/ml phorbol-12-myristate-13-acetate (PMA) for 24 hours, whole cell lysate. IHC-P: Human tonsil tissue. Flow Cyt (intra): MOLT-4 cells treated with ionomycin (500 ng/ml, 24h) and PMA (10 ng/ml, 24h). ICC/IF: MOLT-4 cells treated with ionomycin (500ng/ml, 24 h) and PMA (10ng/ml, 24 h)

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 0.05% BSA, 40% Glycerol (glycerin, glycerine)
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	NAT105
<b>Isotype</b>	IgG1
<b>Light chain type</b>	kappa

### Applications

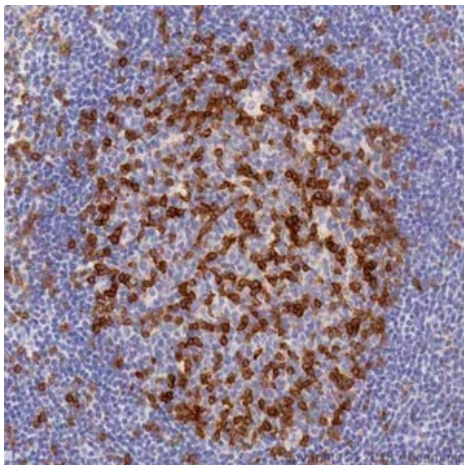
**The Abpromise guarantee** Our [Abpromise guarantee](#) covers the use of ab234444 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/100.
ICC/IF		1/50.
WB		1/1000. Use under non reducing condition. Predicted molecular weight: 32 kDa. See <a href="#">Western blot protocol</a> .
IHC-P		1/50. Perform heat-mediated antigen retrieval using Sodium citrate buffer (pH 6.0), 20 mins.

## Target

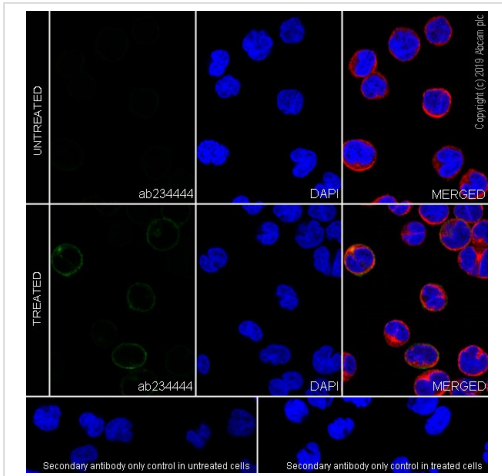
<b>Function</b>	Possible cell death inducer, in association with other factors.
<b>Involvement in disease</b>	Genetic variation in PDCD1 is associated with susceptibility to systemic lupus erythematosus type 2 (SLEB2) [MIM:605218]. Systemic lupus erythematosus is a chronic, inflammatory and often febrile 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.
<b>Sequence similarities</b>	Contains 1 Ig-like V-type (immunoglobulin-like) domain.
<b>Developmental stage</b>	Induced at programmed cell death.
<b>Cellular localization</b>	Membrane.

## Images



Immunohistochemical analysis of paraffin-embedded human tonsil tissue labeling PD1 with ab234444 at 1/50 dilution, followed by Rabbit Anti-Mouse IgG + Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining on T cells of human tonsil germinal center is observed. Performed on a Leica Biosystems BOND instrument. Counter stained with hematoxylin.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PD1 antibody [NAT105] (ab234444)

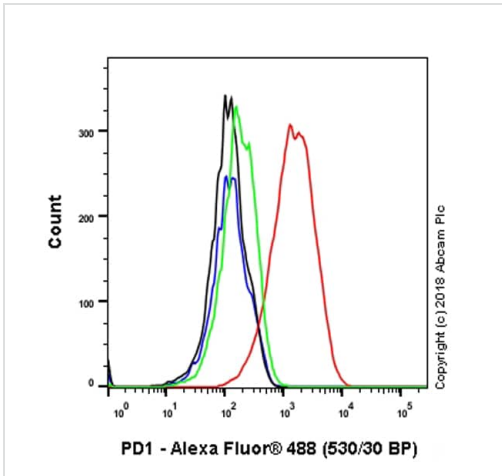


Immunocytochemistry/ Immunofluorescence - Anti-PD1 antibody [NAT105] (ab234444)

Ab234444 staining PD1 in the MOLT-4 (human lymphoblastic leukemia T lymphoblast) treated with Ionomycin (500 ng/ml, 24 h) and PMA (10 ng/ml, 24 h) by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with 4% Paraformaldehyde, permeabilized with 0.1% Triton X-100. Samples were incubated with primary antibody (1/50). [ab150117](#) anti-mouse IgG H&L (Alexa Fluor® 488) preadsorbed (1/100) was used as the secondary antibody.

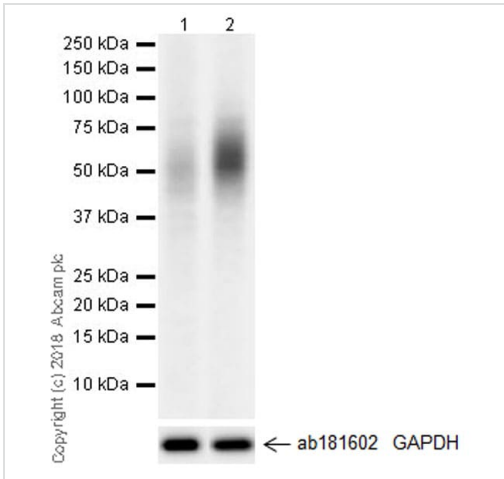
[ab179504](#) Anti-beta IV Tubulin (1/200) was used as a counter stain, detected by [ab150080](#) AlexaFluor®594 Goat anti- Rabbit secondary (1/500)

DAPI was used as a Nuclear counter stain.



Flow Cytometry (Intracellular) - Anti-PD1 antibody [NAT105] (ab234444)

Intracellular flow cytometric analysis of MOLT-4 (human lymphoblastic leukemia cell line) cell line treated with ionomycin (500 ng/ml, 24h) and PMA (10 ng/ml, 24h) labeling PD1 with ab234444 at 1/1000 dilution (red) and an untreated control (green) compared with a mouse monoclonal IgG1 (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat Anti-Mouse IgG H&L (Alexa Fluor® 488) ([ab150113](#)) at 1/2000 dilution was used as the secondary antibody. Gated on viable cells.



Western blot - Anti-PD1 antibody [NAT105] (ab234444)

**All lanes :** Anti-PD1 antibody [NAT105] (ab234444) at 1/1000 dilution

**Lane 1 :** Untreated MOLT-4 (human lymphoblastic leukemia cell line) whole cell lysate

**Lane 2 :** MOLT-4 (human lymphoblastic leukemia cell line) treated with 500 ng/ml ionomycin and 10 ng/ml phorbol-12-myristate-13-acetate (PMA) for 24 hours, whole cell lysate

Lysates/proteins at 10 µg per lane.

**Secondary**

**All lanes :** Goat anti-Mouse IgG (H+L) Peroxidase Peroxidase-Conjugated at 1/5000 dilution

**Predicted band size:** 32 kDa

**Exposure time:** 10 seconds

Blocking/Dilution buffer: 5% NFDm/TBST.

The expression profile observed is consistent with what has been described in the literature (PMID: 26318293)

We recommend that the customer optimizes the blotting conditions for themselves.

Why choose a recombinant antibody?

 <b>Research with confidence</b> Consistent and reproducible results	 <b>Long-term and scalable supply</b> Recombinant technology
 <b>Success from the first experiment</b> Confirmed specificity	 <b>Ethical standards compliant</b> Animal-free production

Anti-PD1 antibody [NAT105] (ab234444)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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