

Product Datasheet

TLR4 Antibody (76B357.1) - Azide Free NBP2-27149

Unit Size: 0.1 mg

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

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NBP2-27149

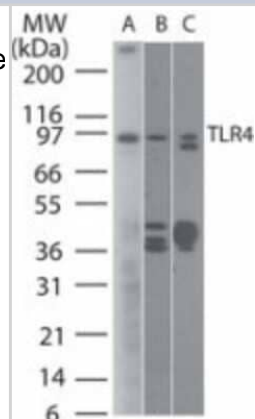
TLR4 Antibody (76B357.1) - Azide Free

Product Information	
Unit Size	0.1 mg
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	76B357.1
Preservative	No Preservative
Isotype	IgG2b Kappa
Purity	Protein G purified
Buffer	PBS
Target Molecular Weight	95.7 kDa
Product Description	
Host	Mouse
Gene ID	7099
Gene Symbol	TLR4
Species	Human, Mouse, Rat, Porcine, Bovine, Mammal
Reactivity Notes	Ground squirrel reactivity reported by a verified customer review. Mammal reactivity reported in scientific literature (PMID: 25130694).
Immunogen	This TLR4 Antibody (76B357.1) was developed against a portion of amino acids 100-200 of human TLR4 (NP_612564).
Product Application Details	
Applications	Western Blot, Flow Cytometry, Flow (Cell Surface), Flow (Intracellular), Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Block/Neutralize, Chromatin Immunoprecipitation (ChIP), CyTOF-ready, Knockdown Validated, Knockout Validated
Recommended Dilutions	Western Blot 1-3 ug/ml, Flow Cytometry 1ul/1 million cells, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence 1:10-1:500, Immunohistochemistry-Paraffin 5ug/ml, Immunohistochemistry-Frozen 1:500, Flow (Cell Surface) reported in multiple pieces of scientific literature, Flow (Intracellular) reported in scientific literature (PMID 18577706), Chromatin Immunoprecipitation (ChIP) 1:10-1:500, CyTOF-ready, Knockout Validated, Knockdown Validated, Block/Neutralize reported in scientific literature (PMID 26063617)

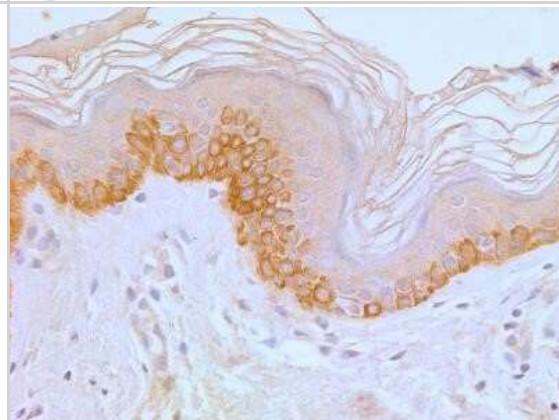


Images

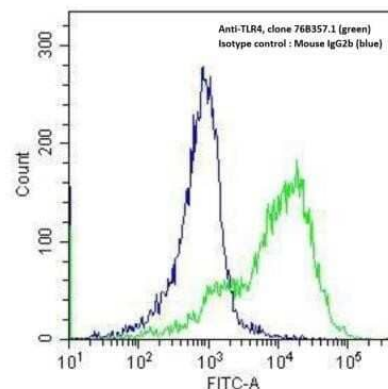
Western Blot: TLR4 Antibody (76B357.1) - Azide Free [NBP2-27149] - Analysis of TLR4 using TLR4 antibody at 2 ug/mL on (A) human intestine and 6 ug/mL on (B) mouse intestine and C) rat intestine lysate.



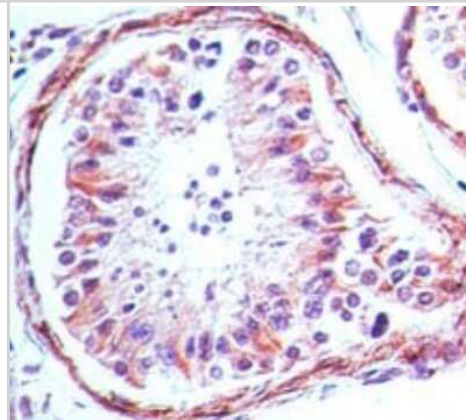
Immunohistochemistry: TLR4 Antibody (76B357.1) - Azide Free [NBP2-27149] - Tissue section of normal human skin stained with antibody at 5 ug/mL. Membrane-cytoplasmic immunopositivity of TLR4 was primarily observed in the pigmented basal cells and the adjacent keratinocytes in the epidermal layer. Image using the standard format of this product.



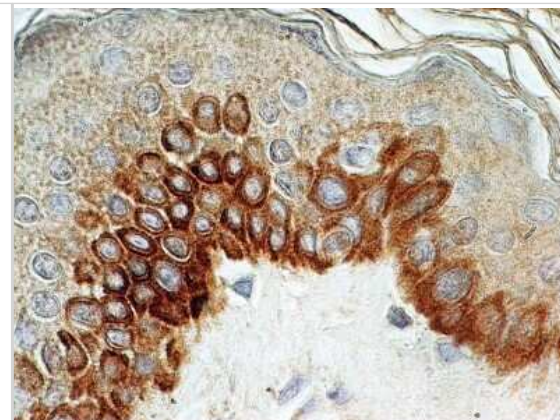
Flow Cytometry: TLR4 Antibody (76B357.1) - Azide Free [NBP2-27149] - Analysis of formaldehyde fixed THP-1 cells (human monocytic leukemia cells) using 2 ug/10⁶ cells TLR4 antibody (clone 76B357.1) with detection employing a donkey anti-mouse IgG (H+L) cross adsorbed secondary antibody, (DyLight 488 conjugated). Isotype control samples incubated with mouse IgG2b isotype control antibody were processed in parallel under the same assay conditions. Image using the standard format of this product.



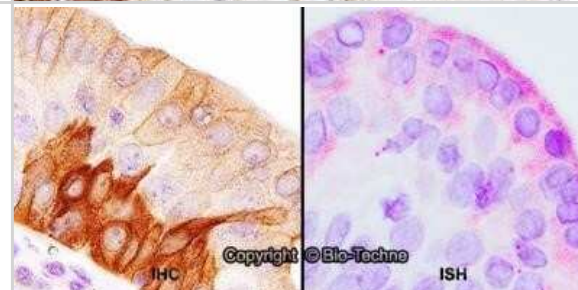
Immunohistochemistry-Paraffin: TLR4 Antibody (76B357.1) - Azide Free [NBP2-27149] - FFPE human testis tissue section stained with TLR4 antibody at 5 ug/mL.



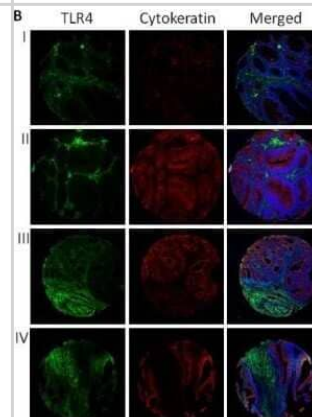
Immunohistochemistry-Paraffin: TLR4 Antibody (76B357.1) - Azide Free [NBP2-27149] - Human skin stained with TLR4 antibody at 5 ug/mL, peroxidase-conjugate and DAB chromogen.



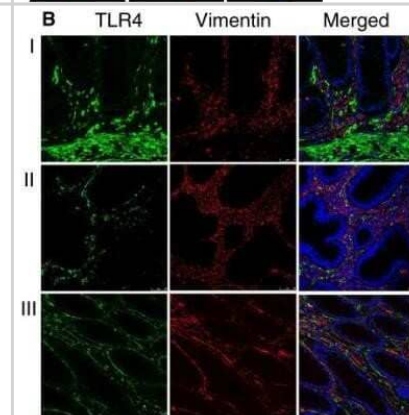
Immunohistochemistry-Paraffin: TLR4 Antibody (76B357.1) - Azide Free [NBP2-27149] - Formalin-fixed paraffin-embedded tissue sections of human tonsil were probed for TLR4 mRNA (ACD RNAScope Probe, catalog # 311281; Fast Red chromogen, ACD catalog # 322750). Adjacent tissue section was processed for immunohistochemistry using Mouse Monoclonal (Novus Biologicals catalog # NB100-56566) at 5ug/mL with 1 hour incubation at room temperature followed by incubation with anti-mouse IgG VisUCyte HRP Polymer Antibody (Catalog # VC001) and DAB chromogen (yellow-brown). Tissue was counterstained with hematoxylin (blue). Specific staining was localized to lymphocytes. Image using the standard format of this product.



Immunohistochemistry: TLR4 Antibody (76B357.1) - Azide Free [NBP2-27149] - Immunofluorescent staining of TMAs. Representative tissue cores from normal (I), adenomatous polyps (II), and CRC (III and IV) are shown. Image collected and cropped by CiteAb from the following publication (<https://www.jeccr.com/content/33/1/45>), licensed under a CC-BY license. Image using the standard format of this product.



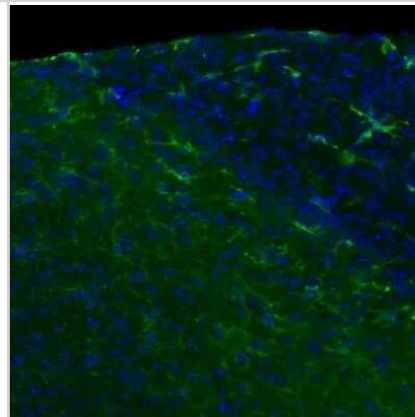
Immunohistochemistry: TLR4 Antibody (76B357.1) - Azide Free [NBP2-27149] - Pericryptal Myfibroblasts are Responsible for Increased TLR4 Expression in a Subset of CRCs. Double-stained immunofluorescence for TLR4 (green) and vimentin (red) in normal (I), adenoma (II), and colon adenocarcinoma (III) (10x). In the stromal compartment of CRCs, immunofluorescent staining for TLR4 localized to the pericryptal myfibroblasts in a subset of samples. Image collected and cropped by CiteAb from the following publication (<https://www.jeccr.com/content/33/1/45>), licensed under a CC-BY license. Image using the standard format of this product.



Immunohistochemistry: TLR4 Antibody (76B357.1) - Azide Free [NBP2-27149] - Pericryptal Myofibroblasts are Responsible for Increased TLR4 Expression in a Subset of CRCs. IHC staining of colon adenocarcinoma for TLR4, vimentin, and alpha-SMA (40x). Staining co-localizes to the pericryptal space, confirming the signal arises from pericryptal myofibroblasts. Image collected and cropped by CiteAb from the following publication (<https://www.jeccr.com/content/33/1/45>), licensed under a CC-BY license. Image using the standard format of this product.



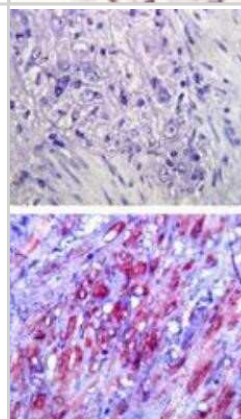
Immunohistochemistry: TLR4 Antibody (76B357.1) - Azide Free [NBP2-27149] - This image shows TLR4 (green) and nucleus (blue) of area postrema of the adult male mouse brain, 20X magnification. Primary antibody diluted 1:500. IHC image submitted by a verified customer review.



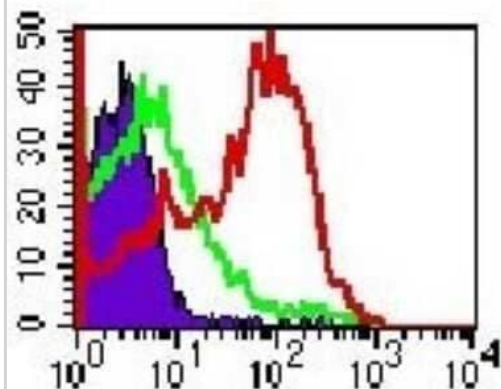
Immunohistochemistry: TLR4 Antibody (76B357.1) - Azide Free [NBP2-27149] - Analysis of Rat's salivary gland tissue section at 1:100 dilution. The antibody generated a membrane-cytoplasmic staining in the tissue with stronger signal in ductal epithelial cells. Image using the standard format of this product.



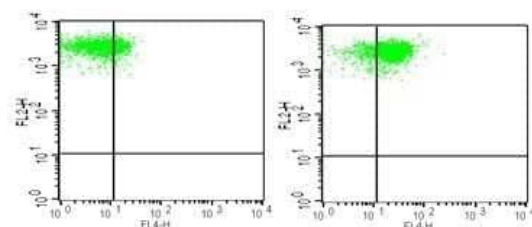
Immunohistochemistry-Paraffin: TLR4 Antibody (76B357.1) - Azide Free [NBP2-27149] - Analysis of TLR4 in paraffin-embedded formalin-fixed human colon tissue using an isotype control (top) and NB100-56566 (bottom) at 5 ug/mL. Image using the standard format of this product.



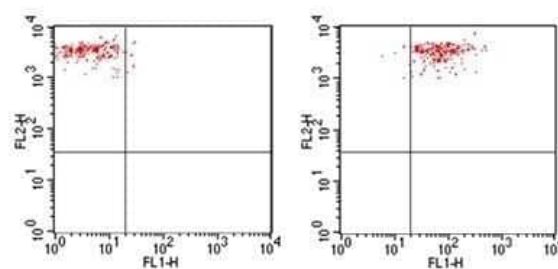
Flow Cytometry: TLR4 Antibody (76B357.1) - Azide Free [NBP2-27149] - Analysis of cell surface TLR4 in mouse splenocytes using 0.5 ug/10⁶ cells of TLR4 antibody. Shaded histogram represents cells without TLR4 antibody; green represents isotype control (BD Pharmingen) red represents TLR4 antibody.



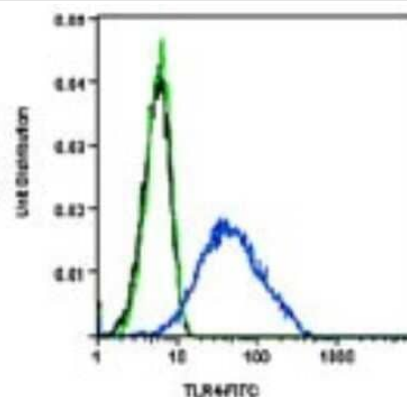
Flow Cytometry: TLR4 Antibody (76B357.1) - Azide Free [NBP2-27149] - Analysis using the Alexa Fluor (R) 647 conjugate of NBP2-27149. TLR4 expression on monocytes from human peripheral blood: PBMC were stained, in a 2 color flow test, with CD14 PE this antibody and 1 ug of either isotype control (Left,) or TLR4-Alexa Fluor 647 (right). PPI negative, CD14+ cells were gated for analysis.



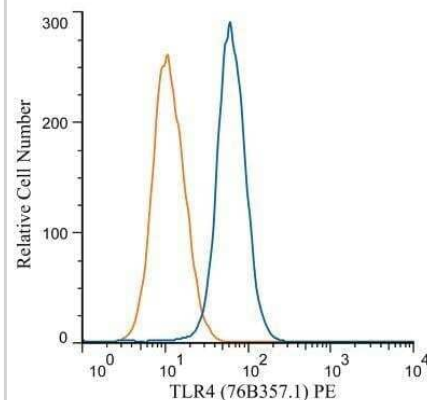
Flow Cytometry: TLR4 Antibody (76B357.1) - Azide Free [NBP2-27149] - Analysis using the FITC conjugate of NBP2-27149. TLR4 expression on monocytes from human peripheral blood: PBMC were stained, in a 2 color flow test, with CD14 PE and 1 ug of either isotype control (Left,) or TLR4-FITC (Right, this antibody). PPI negative, CD14+ cells were gated for analysis.



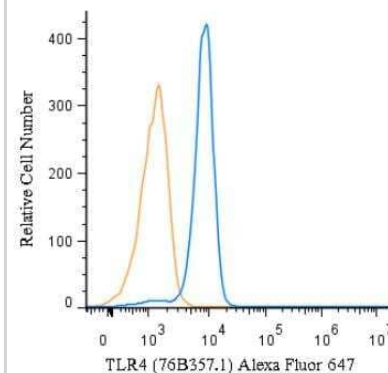
Flow Cytometry: TLR4 Antibody (76B357.1) - Azide Free [NBP2-27149] - Analysis using the FITC conjugate of NBP2-27149. Staining of cell surface TLR4 in human monocyte-derived dendritic cells using this antibody at 1:200 (2.5 ug). Black and green open histograms represent unstained cells and negative control (anti-human CD14).



Flow Cytometry: TLR4 Antibody (76B357.1) - Azide Free [NBP2-27149] - Analysis using PE conjugate of NBP2-27149. An intracellular stain was performed on Jurkat cells with TLR4 antibody (76B357.1) NBP2-27149PE (blue) and an isotype control MAB004 (orange). Cells were fixed with 4% PFA and then permeablized with 0.1% saponin. Cells were incubated in an antibody dilution of 2.5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to phycoerythrin.

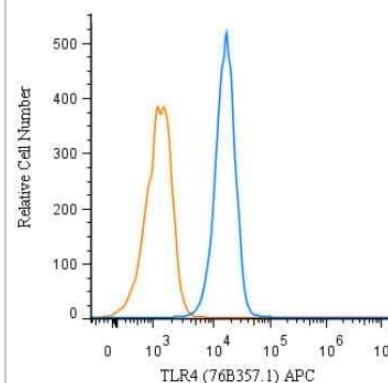


Flow Cytometry: TLR4 Antibody (76B357.1) - Azide Free [NBP2-27149] - An intracellular stain was performed on Jurkat cells with TLR4 antibody (76B357.1) NBP2-27149AF647 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeablized with 0.1% saponin. Cells were incubated in an antibody dilution of 2.5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 647.



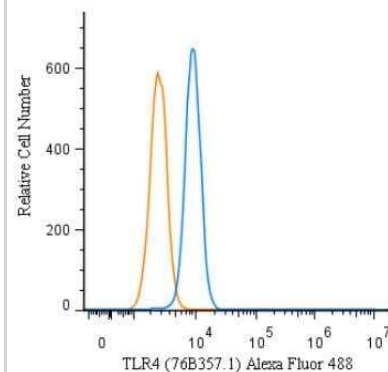
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Flow Cytometry: TLR4 Antibody (76B357.1) - Azide Free [NBP2-27149] - An intracellular stain was performed on Jurkat cells with TLR4 antibody (76B357.1) NBP2-27149APC (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeablized with 0.1% saponin. Cells were incubated in an antibody dilution of 1 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Allophycocyanin.



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Flow Cytometry: TLR4 Antibody (76B357.1) - Azide Free [NBP2-27149] - An intracellular stain was performed on Jurkat cells with TLR4 antibody (76B357.1) NBP2-27149AF488 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeablized with 0.1% saponin. Cells were incubated in an antibody dilution of 10 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 488.



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Publications

Najjar R Raspberry Polyphenols Target Molecular Pathways of Heart Failure Thesis 2023-01-01

Li L, Kong X, Chen W et al. Guizhi-Shaoyao-Zhimu decoction attenuates rheumatoid arthritis by inhibiting mast cell degranulation Traditional Medicine Research 2023-02-23 (Western Blot, Rat)

Bi Y, Ding Y, Wu J Et al. Staphylococcus aureus induces mammary gland fibrosis through activating the TLR/NF-kB and TLR/AP-1 signaling pathways in mice Microb Pathog 2020-08-14 [PMID: 32783982]

Details:

Citation using the Azide Free version of this antibody.

Vobeta EV, Skuljec J, Gudi V et al. Characterisation of microglia during de- and remyelination: Can they promote a repair promoting environment Neurobiol Dis 2011-10-06 [PMID: 21971527]

Khan HU, Aamir K, Jusuf PR et al Lauric acid ameliorates lipopolysaccharide (LPS)-induced liver inflammation by mediating TLR4/MyD88 pathway in Sprague Dawley (SD) rats Life Sci 2020-11-14 [PMID: 33188836] (WB, Mouse)

Details:

Citation using the Azide Free version of this antibody.

Vobeta EV, Skuljec J, Gudi V et al. Characterisation of microglia during de- and remyelination: Can they promote a repair promoting environment Neurobiology of Disease

Details:

This publication used the FITC conjugated form of this antibody (Cat# NB100-55951).

Worku M, Morris A. Binding of different forms of lipopolysaccharide and gene expression in bovine blood neutrophils. J Dairy Sci 2009-07-01 [PMID: 19528595]

Details:

Using the PE conjugated version of NBP2-27149, catalog number NBP2-27149PE.

Degraaf AJ, Zas?ona Z, Bourdonnay E, Peters-Golden M. Prostaglandin E2 reduces Toll-like Receptor 4 Expression in Alveolar Macrophages by Inhibition of Translation. Am. J. Respir. Cell Mol. Biol. 2014-03-06 [PMID: 24601788] (Flow-CS, Rat)

Details:

This citation used the PE version of this antibody.

Haricharan S, Brown P. TLR4 has a TP53-dependent dual role in regulating breast cancer cell growth Proc. Natl Acad Sci U. [PMID: 26063617] (B/N, Human)

Details:

Citation using the Azide Free form of this antibody.

Nowicki M, Kosacka J, Serke H et al. Altered sciatic nerve fiber morphology and endoneural microvessels in mouse models relevant for obesity, peripheral diabetic polyneuropathy, and the metabolic syndrome. J Neurosci Res. 2012-01-01 [PMID: 21919033]

Details:

TLR4 IMG-5031A (clone 76B357.1) for IHC (cryostat sections): Fig 5 (dissected mouse nerves). Note: the antibody was used at 1:500. Mice were perfused with 4% formaldehyde in 0.1 M PBS prior to dissection.

Brandau S, Jakob M, Hemeda H et al. Tissue-resident mesenchymal stem cells attract peripheral blood neutrophils and enhance their inflammatory activity in response to microbial challenge. J Leukoc Biol. 2010-11-01 [PMID: 20682625] (FLOW, Human)

Details:

TLR4 antibody clone 76B357.1 cited for Flow (Cell Surface), Fig 2: human primary parotid mesenchymal stem cell cultures.

Link A, Selejan S, Maack C et al. Phosphodiesterase 4 inhibition but not beta-adrenergic stimulation suppresses tumor necrosis factor-alpha release in peripheral blood mononuclear cells in septic shock. Crit Care. 2008-01-01 [PMID: 19091080]

Details:

TLR4/CD284 (IMG-5031C): Flow (cell surface), human CD14+ monocytes derived from healthy donors stimulated with increasing concentrations of LPS (lipopolysaccharide). 2. TLR2/CD282 (IMG-6320C): Flow (cell surface), human CD14+ monocytes derived from healthy donors stimulated with increasing concentrations of SEB (Staphylococcus aureus enterotoxin).

More publications at <http://www.novusbio.com/NBP2-27149>





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Products Related to NBP2-27149

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NBP2-26244	TLR4 Inhibitor Peptide Set
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-43317-0.5mg	Mouse IgG2b Kappa Light Chain Isotype Control (MG2b)

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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