# **Product Datasheet**

# P2Y12/P2RY12 Antibody - BSA Free NBP2-33870

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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#### NBP2-33870

P2Y12/P2RY12 Antibody - BSA Free

Product Information	
Unit Size	0.1 ml
Concentration	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS (pH 7.2) and 40% Glycerol
Product Description	
Host	Rabbit
Gene ID	64805
Gene Symbol	P2RY12
Species	Human, Canine, Feline
Reactivity Notes	Feline, Canine reactivity reported from verified customer reviews.
Immunogen	This antibody was developed against a recombinant protein corresponding to amino acids: KSFRNSLISMLKCPNSATSLSQDNRKKEQDGGDPNEETPM
Product Application Details	
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry- Paraffin
Recommended Dilutions	Western Blot reported in scientific literature (PMID:31968618)., Immunohistochemistry 1:1000 - 1:2500, Immunocytochemistry/ Immunofluorescence validated from a verified customer review, Immunohistochemistry-Paraffin 1:1000 - 1:2500, Immunohistochemistry-Frozen Validated from a verified customer review

For IHC-Paraffin, HIER pH 6 retrieval is recommended.

**Application Notes** 

#### Images

Immunohistochemistry-Paraffin: P2Y12/P2RY12 Antibody [NBP2-33870] - Staining in human cerebral cortex and liver tissues . Corresponding P2RY12 RNA-seq data are presented for the same tissues.



P2RY12 in Cerebral cortex

P2RY12 in Liver

RNA [TPM]

RNA [TPM] 20 40 60 80 100



Western Blot: P2Y12/P2RY12 Antibody [NBP2-33870] - Quantitative biochemical measurements of P2Y12/P2RY12 protein and mRNA in human brains. Western blot measurements of P2Y12/P2RY12 levels in MTG samples from LP, HP and AD brains. Representative western blot image of P2Y12/P2RY12 polypeptide of MTG protein extracts identified with Novus antibody. Blots were normalized for levels of beta actin. Image collected and cropped by CiteAb from the following publication (https://www.mdpi.com/1422-0067/21/2/678), licensed under a CC-BY license.

Immunocytochemistry/Immunofluorescence: P2Y12/P2RY12 Antibody [NBP2-33870] - Green-P2Y12/P2RY12, Blue-DAPI. 1:200 dilution for fixed tissue sections of feline optical nerve. ICC/IF image submitted by a verified customer review.

Immunohistochemistry: P2Y12/P2RY12 Antibody [NBP2-33870] -Features of P2Y12/P2RY12-immunoreactive microglia. (I,J). Staining of representative sections with P2Y12/P2RY12 (Novus) antibody preabsorbed with immunizing peptide (I, +Pep) compared to staining of matched section with P2Y12/P2RY12 antibody non-absorbed (J, -Pep). (K,L). Staining of matched sections with alternative P2Y12/P2RY12 antibody. Same staining pattern of microglia revealed with P2Y12/P2RY12 (Novus) antibody (C) as with P2Y12/P2RY12 (Alomone Labs) antibody. All sections shown had been counterstained with neutral red to identify nuclei (red color). Abbreviations: ND: non-demented. AD: Alzheimer's disease. MTG: middle temporal gyrus.-Pep: antibody without immunizing peptide. + Pep: antibody with immunizing peptide. Scale bars represent 50 um. Image collected and cropped by CiteAb from the following publication (https://www.mdpi.com/1422-0067/21/2/678), licensed under a CC-BY license.

Immunohistochemistry-Paraffin: P2Y12/P2RY12 Antibody [NBP2-33870] - Staining of human cerebral cortex shows strong cytoplasmic positivity in microglia.













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Immunohistochemistry: P2Y12/P2RY12 Antibody [NBP2-33870] -Images demonstrating colocalization of CD105/MAB1097 with microglial markers (a) panels A, B Low magnification images of high-plague (HP) case (panel A) & AD case (panel B) showing staining with CD105/MAB1097 (purple arrows) & IBA-1 (brown arrows) in MTG sections. Both images at same magnification: scale bars represent 100 µm. (b) (panel A) CD105 microglia (purple arrows) with ramified morphology stained with antibody to P2RY12 (brown arrow) in lowplaque (LP) case. (panel B) CD105 microglia (purple arrows) & HLA-DR (brown arrow) in AD case. (panel C) CD105 microglia (purple arrow) & CD45 (brown arrow) in AD case. All sections were from MTG. Images at same magnification: scale bars represent 50 µm. (c) (panel A–E). Patterns of staining of CD105 (purple) & IBA-1 (brown) in MTG sections of cases with progressively increasing pathology from LP to AD. (panel F). CD105-positive microglia in hippocampus (HPC) of AD case. Images at same magnification: scale bars represent 50 µm. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/31340569), licensed under a CC-BY license. Not internally tested by Novus Biologicals.





#### **Publications**

Maesawa S, Yokoyama T, Sakanoue W, Yamamoto Y et Al. ADP-mediated Modulation of Intracellular Calcium Responses in Chromaffin Cells: The Role of Ectonucleoside Triphosphate Diphosphohydrolase 2 on Rat Adrenal Medulla Function J Histochem Cytochem 2023-12-30 [PMID: 38158780]

Yokoyama T, Saino T, Nakamuta N, Yamamoto Y. et Al. Immunohistochemical localization of P2Y12 purinoceptors in the rat carotid body Auton Neurosci 2024-02-29 [PMID: 38422662]

Wang Y, Wang W, Su L, Ji F et Al. BACH1 changes microglial metabolism and affects astrogenesis during mouse brain development Dev Cell 2023-12-15 [PMID: 38101413]

Alban TJ, Grabowski MM, Otvos B et al. The MIF promoter SNP rs755622 is associated with immune activation in glioblastoma JCI insight 2023-07-10 [PMID: 37252795]

Details:

1:50 IHC-P dilution

Jean Paul Chadarevian, Sonia I. Lombroso, Graham C. Peet, Jonathan Hasselmann, Christina Tu, Dave E. Marzan et al. Engineering an inhibitor-resistant human CSF1R variant for microglia replacement Journal of Experimental Medicine 2023-03-06 [PMID: 36584406]

Zhou Y, Bhatt H, Mojica CA et al. Mesenchymal-derived extracellular vesicles enhance microglia-mediated synapse remodeling after cortical injury in aging Rhesus monkeys Journal of neuroinflammation 2023-09-02 [PMID: 37660145] (IHC, Monkey)

Zhou Y, Bhatt H, Mojica C et al. Mesenchymal-Derived Extracellular Vesicles Enhance Microglia-mediated Synapse Remodeling after Cortical Injury in Rhesus Monkeys Research Square 2023-05-15 [PMID: 37292805] (IHC, Rhesus Macaque)

Li C, Liu K, Zhu J, Zhu F The effects of high plasma levels of A beta 1-42 on mononuclear macrophage in mouse models of Alzheimer's disease Research Square 2022-12-07 (IHC, Mouse)

Claes C, Danhash Ep, Hasselmann J Et Al. Plaque-associated human microglia accumulate lipid droplets in a chimeric model of Alzheimer\'s disease Molecular neurodegeneration 2021-07-23 [PMID: 34301296] (IF/IHC)

Walker DG, Tang TM, Mendsaikhan A et al. Patterns of Expression of Purinergic Receptor P2RY12, a Putative Marker for Non-Activated Microglia, in Aged and Alzheimer\'s Disease Brains Int J Mol Sci 2020-01-20 [PMID: 31968618] (IF/IHC, WB, Human)

Milior G, Morin-Brureau M, Chali F et al. Distinct P2Y receptors mediate extension and retraction of microglial processes in epileptic and peri-tumoral human tissue J. Neurosci. 2020-01-02 [PMID: 31896671] (IF/IHC, Human)

Walker DG, Lue LF, Beach TG, Tooyama I, Microglial Phenotyping in Neurodegenerative Disease Brains: Identification of Reactive Microglia with an Antibody to Variant of CD105/Endoglin Cells 2019-07-23 [PMID: 31340569] (IF/IHC, Human)

More publications at <u>http://www.novusbio.com/NBP2-33870</u>





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#### Products Related to NBP2-33870

NBP2-33870PEP	P2Y12/P2RY12 Recombinant Protein Antigen
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

#### 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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