

Product Datasheet

NK1R Antibody NB300-101SS

Unit Size: 0.025 ml

Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

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Updated 6/15/2014 v.20.1

NB300-101SS

NK1R Antibody

Product Information	
Unit Size	0.025 ml
Concentration	This product is unpurified. The exact concentration of antibody is not quantifiable.
Storage	Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	No Preservative
Purity	Whole antisera

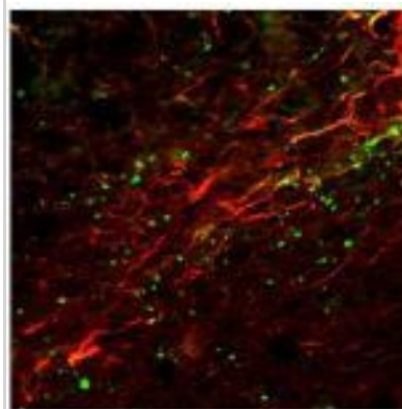
Product Description	
Host	Rabbit
Gene ID	6869
Gene Symbol	TACR1
Species	Human, Mouse, Rat, Guinea Pig
Species Reactivity	Human, rat, mouse and guinea pig. Immunogen sequence has 92% homology to canine.
Specificity/Sensitivity	NB300-101 is specific to the NK-1 receptor. Staining of cells transfected with NK-1 was abolished by preabsorption of the antisera with NK-1. Specificity was also verified by the localization of immunohistochemical staining with NB300-101 in neurons in
Immunogen	A synthetic peptide corresponding to the C-terminus of rat Neurokinin 1 Receptor, conjugated to bovine thyroglobulin. [UniProt# P14600]

Product Application Details	
Applications	Western Blot, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin
Recommended Dilutions	Immunocytochemistry/Immunofluorescence 1:50, Immunohistochemistry 1:1000, Immunohistochemistry-Frozen 1:1000, Immunohistochemistry-Paraffin, Western Blot 1:100-1:2000
Application Notes	This Neurokinin 1 Receptor antibody is useful for Immunocytochemistry/Immunofluorescence, Immunohistochemistry on frozen sections and Western Blot. For ICC/IF staining, please see customer the review. Use in Immunohistochemistry on paraffin embedded sections was reported in scientific literature (PMID: 23792204).

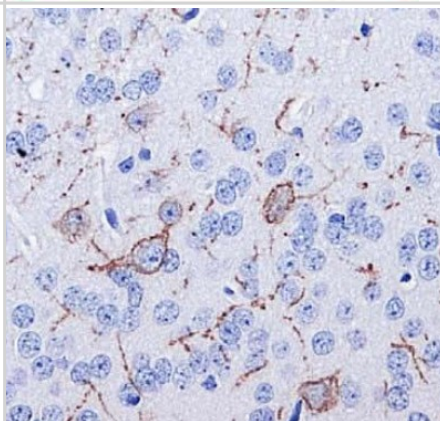


Images

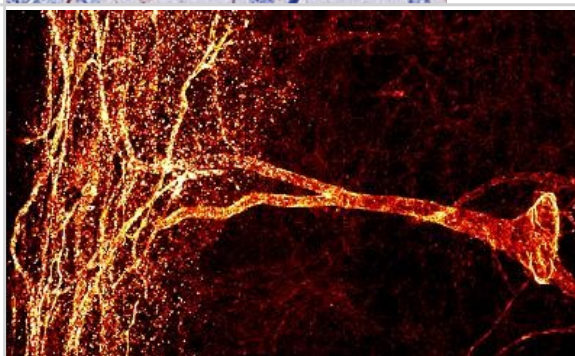
Immunocytochemistry/Immunofluorescence: Neurokinin 1 Receptor Antibody [NB300-101] - IF analysis of Neurokinin 1 Receptor in rat brain tissue. Image courtesy of anonymous customer product review.



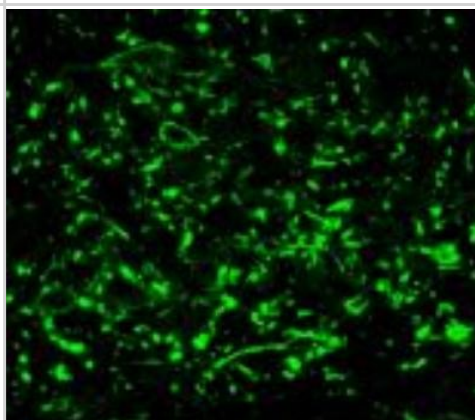
Immunohistochemistry: Neurokinin 1 Receptor Antibody [NB300-101] - Immunohistochemical analysis of Neurokinin 1 Receptor in mouse brain (selected cells, axon & dendrites) using NB300-101.



Immunocytochemistry/Immunofluorescence: Neurokinin 1 Receptor Antibody [NB300-101] - Confocal image of SPR reactivity using polyclonal anti-NK-1 Receptor (NB 300-101) in a lamina III neuron in the spinal cord of a rat.



Immunocytochemistry/Immunofluorescence: Neurokinin 1 Receptor Antibody [NB300-101] - IF analysis of Neurokinin 1 Receptor in rat brain tissue. Image courtesy of anonymous customer product review.



Publications

Lin LH, Moore SA, Jones SY et al. Astrocytes in the rat nucleus tractus solitarius are critical for cardiovascular reflex control. *J Neurosci*. 2013 Nov 20 [PMID: 24259582] (IHC-P, ICC/IF, Rat)

Luo YL, Li PB, Zhang CC et al. Effects of four antitussives on airway neurogenic inflammation in a guinea pig model of chronic cough induced by cigarette smoke exposure. *Inflamm Res*. 2013 Dec [PMID: 24085318] (WB, Guinea Pig)

Yang Y, Yan M, Zhang H, Wang X. Substance P participates in immune-mediated hepatic injury induced by concanavalin A in mice and stimulates cytokine synthesis in Kupffer cells. *Exp Ther Med*. 2013 Aug [PMID: 24137208] (ICC/IF, Mouse)

Ramalho R, Almeida J, Fernandes R et al. Neurokinin-1 receptor, a new modulator of lymphangiogenesis in obese-asthma phenotype. *Life Sci* 2013 Aug 6 [PMID: 23792204] (IHC-P, Mouse)

Commons KG. Locally collateralizing glutamate neurons in the dorsal raphe nucleus responsive to substance P contain vesicular glutamate transporter 3 (VGLUT3). *J Chem Neuroanat* 2009 Dec [PMID: 19467322] (IHC, ICC/IF, Rat)

Broccardo M et al. Expression of NK-1 and NK-3 tachykinin receptors in pancreatic acinar cells after acute experimental pancreatitis in rats. *Am J Physiol Gastrointest Liver Physiol* 291(3):G518-24. 2006 Sep. [PMID: 16782701] (ICC/IF, WB, Rat)

Commons KG, Connolley KR, Valentino RJ. A neurochemically distinct dorsal raphe-limbic circuit with a potential role in affective disorders. *Neuropsychopharmacology* 28(2):206-15. 2003 Feb. [PMID: 12589373] (ICC/IF, Rat)

Mounir S, Parent A. The expression of neurokinin-1 receptor at striatal and pallidal levels in normal human brain. *Neurosci Res* 44(1):71-81. 2002 Sep. [PMID: 12204295] (WB, IHC, Human)

Ma MC et al. Temporal decrease in renal sensory responses in rats after chronic ligation of the bile duct. *Am J Physiol Renal Physiol* 283(1):F164-72. 2002 Jul. [PMID: 12060598] (WB, Rat)

Talman WT, Dragon DN, Jones SY, Moore SA, Lin LH. Sudden Death and Myocardial Lesions after Damage to Catecholamine Neurons of the Nucleus Tractus Solitarius in Rat. *Cell Mol Neurobiol*. 2012 Apr 8. [PMID: 22484855] (IHC-Fr, ICC/IF, Rat)

Caioli S, Curcio L, Pieri M et al. Substance P receptor activation induces downregulation of the AMPA receptor functionality in cortical neurons from a genetic model of Amyotrophic Lateral Sclerosis. *Neurobiol Dis*. 2011 Jun 2. [PMID: 21726643] (ICC/IF, Mouse)

Yip J, Chahl LA. Localization of NK1 and NK3 receptors in guinea-pig brain. *Regul Pept* 98(1-2):55-62. 2001 Apr 2. [PMID: 11179779] (IHC, Guinea Pig)

More publications at <http://www.novusbio.com/NB300-101>



Procedures

Immunohistochemistry Protocol for Neurokinin 1 Receptor Antibody (NB300-101)

Immunohistochemistry

- 1) Perfuse rat through the ascending aorta with 500 ml. of 0.1 M phosphate buffered saline (PBS) (pH 7.4 @ 4 degrees C), followed by 750 ml. of PBS containing 4% formaldehyde and 12.5% picric acid (pH 6.9, 4 degrees C). Tissue of interest is then dissected and post-fixed in PBS containing 4% formaldehyde and 12.5% picric acid (pH 6.9 at 4 degrees C) for at least 4 hours, followed by fixation in PBS containing 30% sucrose (pH 7.4, 4 degrees C) for at least 24 hours. Until the tissue sinks.
- 2) Cut fixed sections at 60 um using a sliding microtome.
- 3) If using culture cells, remove media and perform 2-3 washes in PBS (pH 7.4) -use same protocol without agitation.
- 4) Place tissue section in microcentrifuge tubes containing 1 ml. Of PBS, pH 7.4 as they are being cut. Wash sections (in PBS) on an upright rotator for 10-15 minutes.
- 5) Remove PBS and add 1 ml. of blocking solution (PBS + 1% normal donkey serum (NDS) + 0.3% triton X-100).
- 6) Incubate tissue sections in blocking solution for 30 minutes at room temperature (RT) on rotator.
- 7) Remove blocking solution and add anti-neurokinin-1 receptor or anti-Neurokinin-3 receptor(NB 300-101/NB 100-102) antibody +PBS + 1% NDS + 0.3% triton X-100 + NB 300-101/102 @ 1:100~1:1000
- 8) Incubate overnight on rotator at RT.
- 9) Remove primary antisera and perform 3 x 10 minute PBS washes (1ml volume) on rotator.
- 10) Add 1 ml. of secondary antibody and incubate for 2 hours at RT on rotator.
-PBS + 1% NDS + 0.3% triton X 100 + anti-rabbit Cy3 (Jackson Immunoresearch Labs) at 1:600
- 11) Perform 3 X 10 minute PBS washes (1 ml volume) on rotator
- 12) Mount tissue sections on gelatin coated slides and allow tissue to dry
- 13) Run slides through alcohol gradients (70%, 90%, 100%, xylene) leaving slide in each alcohol and xylene for 2 minutes
- 14) Coverslip with DPX mountant (FLUKA) ** Note: 24 well plates may be substituted for microcentrifuge tubes. Use flat top bench rotator instead of upright rotator.



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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.

For more information on our guarantee, please visit www.novusbio.com/guarantee.

