

Size	Price
100 µl of serum	Contact us

Polyclonal rabbit anti-rat NTPDase3 antibodies

Name: rN3-1_L(I₄,I₅); rN3-2_L(I₄,I₅); rN3-3_L(I₄,I₅)

Applications¹

	Yes	Dilution	No	Not tested
Western blot (non-reduced) [§]	+	1:500		
Western blot (reduced) [¶]			×	
Immunohistochemistry [*]	+	1:500		
Flow cytometry	+	1:100		
ELISA				×
Immunoprecipitation				×

[§] Due to the low abundance of NTPDase3 in tissues and/or due to a weak reactivity of the antibody in Western blot these antibodies give a hardly visible signal on tissues homogenate. A partial purification of the antigen as CONA column (Vorhoff et al. 2006) is necessary.

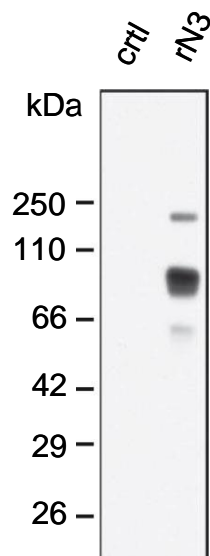
[¶] Thiol-reactive reagents (e.g. β-mercaptoethanol, DTT) must be avoided as they destroy the epitope recognized by the antibody.

* Cryosection and acetone fixation.

Cross-reactivity

In Western blot and Flow cytometry, these antibodies cross-reacts with mouse NTPDase3.

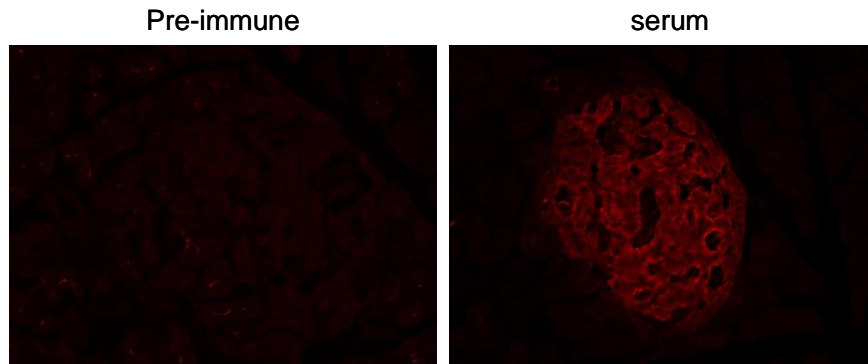
Western blot¹



Protein samples from a lysate from HEK 293 cells (ctrl) or transiently transfected with a plasmid encoding for rat NTPDase3 (rN3) were loaded on a NuPAGE® Novex® 4-12% Bis-Tris gel under non-reducing conditions, transferred to an Immobilon-P membrane, and incubated rN3-1_L. Stained bands were detected only in sample from cells expressing rat NTPDase3 at the expected molecular weight. Note the presence of both a monomer and a dimer as regularly seen for this protein.

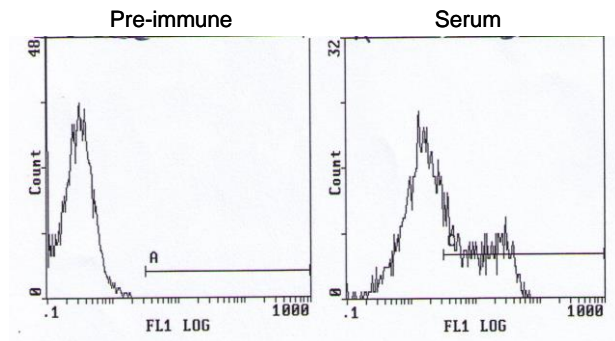
Figure taken from Vekaria et al. (2006) *Am J Physiol Renal Physiol*, 290(2), F550-560, Am Physiol Soc, and used with permission.

Immunohistochemistry¹



A rat pancreas section stained by immunofluorescence with rN3-1_LI₅ or preimmune serum displays a positive reaction on the cells of the Langerhans islets only with the antiserum.

Flow cytometry¹



HEK 293 cells transiently transfected with rat NTPDase3 cDNA vector. Cells were incubated with rN3-3_LI₅ (1:50) or preimmune serum at the same dilution. Transfected cells incubated with the antiserum show a rightward shift.

Storage

To avoid excessive freeze-thaw cycles, a small amount can be kept at 4°C for generally up to one year. A better method consists to dilute the antibody 10 times in one part of 145 mM NaCl, 1% BSA, 10 mM Tris (pH 7.4), and one part of glycerol (for a final concentration of 50% v/v) and to keep it at -20°C (note that 50% glycerol solutions freeze at about -30°C). For long-term storage, freeze samples directly at -80°C.

Reference to cite in your publication (paper where these antibodies were characterized)

This antibody was obtained from ectonucleotidases-ab.com and its specificity was characterized in:

Vekaria RM, Shirley DG, Sévigny J, Unwin RJ. Immunolocalization of ectonucleotidases along the rat nephron. *Am J Physiol Renal Physiol.* 2006; 290(2):F550-560.

Few other references where these antibodies were used

- Vorhoff T, Zimmermann H, Pelletier J, Sévigny J, Braun N. Cloning and characterization of the ecto-nucleotidase NTPDase3 from rat brain : predicted secondary structure and relation to other members of the E-NTPDase family and actin. *Purinergic Signal*. 2005; 1(3):259-270.
- Lavoie EG, Fausther M, Kauffenstein G, Kukulski F, Künzli BM, Friess H, Sévigny J. Identification of the ectonucleotidases expressed in mouse, rat, and human Langerhans islets: potential role of NTPDase3 in insulin secretion. *Am J Physiol Endocrinol Metab*. 2010; 299(4):E647-656.
- Lavoie EG, Gulbransen BD, Martín-Satué M, Aliagas E, Sharkey KA, Sévigny J. Ectonucleotidases in the digestive system: focus on NTPDase3 localization. *Am J Physiol Gastrointest Liver Physiol*. 2011; 300(4):G608-620.
- Vongtau HO, Lavoie EG, Sévigny J, Molliver DC. Distribution of ecto-nucleotidases in mouse sensory circuits suggests roles for nucleoside triphosphate diphosphohydrolase-3 in nociception and mechanoreception. *Neuroscience*. 2011; 193:387-398.
- Cognato GP, Vuaden FC, Savio LE, Bellaver B, Casali E, Bogo MR, Souza DO, Sévigny J, Bonan CD. Nucleoside triphosphate diphosphohydrolases role in the pathophysiology of cognitive impairment induced by seizure in early age. *Neuroscience*. 2011; 180:191-200.
- Rockenbach L, Braganhol E, Dietrich F, Figueiro F, Pugliese M, Edelweiss MI, Morrone FB, Sévigny J, Battastini AM. NTPDase3 and ecto-5'-nucleotidase/CD73 are differentially expressed during mouse bladder cancer progression. *Purinergic signalling*. 2014; 10(3):421-430.
- Vieira C, Magalhaes-Cardoso MT, Ferreirinha F, Silva I, Dias AS, Pelletier J, Sévigny J, Correia-de-Sa P. Feed-forward inhibition of CD73 and upregulation of adenosine deaminase contribute to the loss of adenosine neuromodulation in postinflammatory ileitis. *Mediators Inflamm*. 2014; 254640.
- Gonzalez DA, Egado P, Balcarcel NB, Hattab C, Barbieri van Haaster MM, Pelletier J, Sévigny J, Ostuni MA. Rat submandibular glands secrete nanovesicles with NTPDase and 5'-nucleotidase activities. *Purinergic signalling*. 2015; 11(1):107-116.