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Antibodies to Noelin-1/Olfactomedin-1 (Noe1)

Noelin-1/Olfactomedin-1 antibodies. Catalog # Noe-101 AP, Noe-112AP, P-Noe100, P-Noe110, PC-Noe100, PC-Noe1.

Accession # 088998 and Alternate Nomenclature: *AMY; Noe1; OlfA; Pancortin; Pancortin 3; AW742568.*

Noelin-1 (Olfactomedin-1) is a member of noelin family of secreted glycoproteins. These proteins play an important role in the development of frogs and birds (1). In vertebrates, these proteins are implicated in various processes such as cell-cell adhesion, tumorigenesis, regulation of cell cycle and they may serve as modulators of critical signaling pathways and also play multiple roles in neural crest development, neurogenesis and dorsal ventral patterning (2). More specifically, Noelin-1, located on mouse chromosome 2A3, was reported to be able to prolong neural crest production, to promote differentiation in neutralized animal caps and also regulate the production of neural crest cells by the neural tube (3). Noelin-1 was found to share its olfactomedin domain with the C-terminal of myocilin. Since mutations in the olfactomedin domain of myocilin were found to be the cause of primary open angle glaucoma, noelin-1 is a promising target in the treatment for eye diseases (4).

A study has reported that over-expression of Noelin-1 leads to excess neural crest emigration as well as extends the time that the neural tube is capable of generating and regenerating neural crest cells (5). Recently it was identified that genes belonging to olfactomedin-domain containing family of proteins may contribute to psychiatric disorders and other human disorders (2). Noelin-1 can be found in eyes and brain. Its mRNA expression is restricted to the dorsal neural folds and migrating neural crests. Noelin-1 is approximately a 58kDa protein (485 amino acids).

The Noelin-1 antibodies were generated using peptide corresponding to N-terminal and mid-region of mouse Noelin-1 protein. Noelin-1 antibodies are affinity purified over immobilized antigen based affinity chromatography, and the purified immunoglobulins are stabilized in antibody stabilization buffer. FabGennix Int. Inc. will provide limited quantities of antigenic blocking protein for competition assays involving Noelin-1 antibody. Antibodies to Noelin-1 (Noe-101AP and Noe-112AP) will label ~58kDa protein in Western blot positive control for Noelin-1 (PC-Noe1) and several other tissues. FabGennix Inc. will conjugate this and other antibodies from its catalog to either secondary enzymes (alk-Pase or HRP) or fluorescent probes at a nominal cost upon request. FabGennix also provides custom antibody production services for researchers that are looking for high affinity mono and polyclonal antibodies in various species. We specialize in making application specific antibodies that are useful in IHC, confocal and other applications where native antigen is detected. For a complete listing of all FabGennix antibodies please visit www.Fabgennix.com.

Catalog #	Host Species	Nature	Cross reactivity	Quantity	Volume
Noe-101 AP	Rabbit	Affinity purified Noelin-1 N-terminal antibodies	M, others n.d	100 ug	200ul
Noe-112AP	Rabbit	Affinity Purified Noelin-1 mid-region antibodies	M, others n.d	100 ug	200ul
P-Noe100	n/a	Antigenic blocking peptide for Noe-101AP	n/a	250 ug	100ul
P-Noe110	n/a	Antigenic blocking peptide for Noe-112AP	n/a	250 ug	100ul
PC- Noe1	n/a	Western blotting positive control for Noelin-1	n/a	For 5 appl	Inquire

R = rat; M = mouse; H = human; C = chicken; monk = monkey ; * not all variants are labeled equally

Immunogen:	Synthetic peptides corresponding to unique epitope on Noelin-1. The peptide sequence was selected from N-terminal, amino acids 1-60 for Noe-101AP and from mid-region, amino acids 130-190 for Noe-112AP. These peptides were covalently modified post-synthetically to achieve desired antigenicity.	Western Blot of Noelin-1. The Noelin-1 antibody (Cat # Noe-101AP) at 1:500 in diluBuffer was probed with PC-Noe1 sample. MW of Noelin-1 is approximately 58kDa.
Concentration:	Noe -101AP and Noe-112AP: IgG concentration 0.64-0.72 mg/ml in antibody stabilization buffer.	
Applications:	Antibody Noe -101AP and Noe-112AP is ideal for WB and ELISA applications, other applications have not been tested. The species cross reactivity for these antibodies have not been examined fully. The dilutions for this antibody is for reference only, investigators are expected to determine the optimal conditions for specific assay. WB: > 1:500; IMM & i.p pull-down assays: n.d; IHC n.d. ELISA <1:10,000. Application of this antibody in protocols not listed here does not necessarily exclude its use in such procedures.	
Reactivity:	These antibodies detect a single band of approximately 58kDa in PC-Noe1 samples.	
Protocols:	Standard protocol for various applications (WB; IMM and IHC) of this antibody is provided with the product specification sheet, however, FabGennix Inc. strongly recommends investigators to optimize conditions for use of this antibody in their laboratories.	
Form/Storage:	The antiserum is supplied in antibody stabilization buffer. The affinity-purified antibodies are isolated on immobilized antigen-affinity column and supplied as stabilized product. Store at -20°C for long-term storage. FabGennix Inc. does not recommend storage of very dilute antibody solutions unless they are prepared in specially formulated multi use antibody dilution buffer (Cat # DiluOBuffer). Working solutions of antibodies in DiluOBuffer should be filtered through 0.45um filter after every use for long-term storage.	

Notes: Briefly centrifuge to collect liquid, heat or boil PC-Noe1 tube for 1-2 minutes to dissolve any precipitate before use. This product is "ready-to-use" for electrophoresis. After thawing store at room temperature. Repeated freezing and thawing may result in appearance of higher MW immunoreactive bands.

New Reagents: Now you can recycle your western blots (nitrocellulose, supported membranes and PVDF membranes) by using our StripOBuffer (Cat FGI-1989). Each stripping is guaranteed to give better signal (up to 8 stripping). No strong pungent smell of reducing agents or heating required. Block in 5X diluOBuffer and you are ready for blotting with a new antibody

References:

1. Moreno TA, Bronner-Fraser M. Neural expression of mouse noelin-1/2 and comparison with other vertebrates. *Mech Dev.* November 2002; 119(1):121-125.
2. Tomarev S, Nakaya N. Olfactomedin domain-containing proteins: possible mechanisms of action and function in normal development and pathology. *Mol Neurobiol.* October 2009; 40(2):122-138.
3. Moreno TA, Bronner-Fraser M. Noelins modulate the timing of neuronal differentiation during development. *Dev Biol.* 15 December 2005; 288(2):434-447.
4. Mukhopadhyay A, et al. Bioinformatic approaches for identification and characterization of olfactomedin related genes with a potential role in pathogenesis of ocular disorders. *Mol Vis.* 20 April 2004; 10:304-314.
5. Barembaum M, et al. Noelin-1 is a secreted glycoprotein involved in generation of the neural crest. *Nat Cell Biol.* April 2000; 2(4):219-225.

* For users who may require large amounts of Noe-101AP, please enquire about bulk material discounts.
This Product is for Research Use Only and is NOT intended for use in humans or clinical diagnosis.

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