

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Olfactomedin-1/Noelin-1 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Olfactomedin-1/Noelin-1 Ser2-Arg481 Accession # NP_062371
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Olfactomedin-1 (neuronal olfactomedin-related endoplasmic reticulum-localized-1), also known as Olfactomedin-1 or pancortin, is a 75 kDa secreted extracellular matrix glycoprotein expressed in the brain (1-3). Alternate promoter usage and splicing creates four forms of Noelin (Noelin 1-4) that are combinations of a common central region with alternate N- and C-termini (3, 4). Noelin-1 is the longest of the four isoforms, encoding a 16 amino acid (aa) signal sequence and a 469 aa mature protein with a coiled-coil region for multimerization and an olfactomedin-like domain. The shortest isoforms, Noelin-3 and -4, are truncated within the coiled-coil region and lack the olfactomedin-like domain (4). In the species tested, these isoforms appear to oppose actions of the longer isoforms (5). All isoforms are capable of forming homo- or heterodimers through cysteines in their common central region (2). The C-terminus of Noelin-1 (mouse aa 482-485) contains a putative endoplasmic reticulum retention sequence that has not been included in the R&D Systems protein (6). Mouse Noelin-1 (aa 17-481) shares > 99%, 99%, 97%, 96% and 93% aa identity with corresponding regions of rat, human, opossum, chicken and *Xenopus* Noelin-1, respectively. In vivo expression patterns differ somewhat between species (1). In chick early development, Noelin-1 shows highest concentration in areas that produce neural crest cells and is produced by migrating neural crest cells (7). Overproduction of Noelin-1 prolongs neural crest cell formation (7). Noelin-1 is also expressed in mouse neural crest, but not frog (1-3). All three species express Noelin-1 later in differentiating neural tissues in the spinal cord, brain and cranial ganglia (1-3).

PRODUCT SPECIFIC NOTICES

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