



## Anti N-syndecan (syndecan-3)

### BACKGROUND

Syndecan is the family name of transmembrane proteoglycans that carry predominantly heparan sulfate side chains. This proteoglycan family consists of four members. N-syndecan (syndecan-3) is the principal member expressed during early postnatal development in both central and peripheral nervous systems. N-syndecan binds various heparin-binding growth factors such as FGFs via the heparan sulfate moiety, and communicates with the cytoskeleton via the cytoplasmic domain of the core protein. N-syndecan plays a pivotal role in formation of the neural network through these molecular interactions. This antibody recognizes effectively the core protein of N-syndecan.

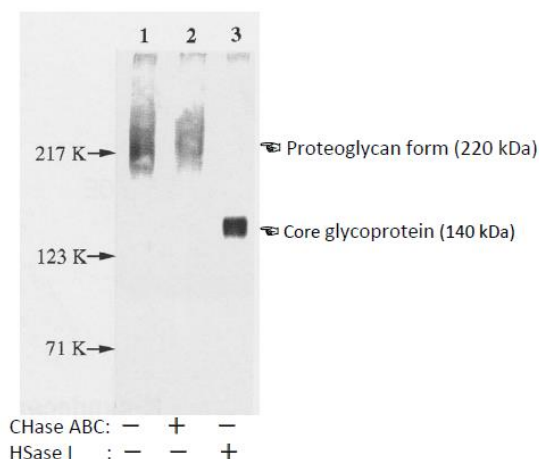
<b>Product type</b>	Primary antibody
<b>Immunogen</b>	A recombinant protein representing the entire core protein of rat N-syndecan
<b>Rased in</b>	-
<b>Myeloma</b>	-
<b>Clone number</b>	-
<b>Isotype</b>	-
<b>Host</b>	Rabbit
<b>Source</b>	Whole Serum (Liquid)
<b>Purification</b>	-
<b>Buffer</b>	PBS containing 0.1% NaN <sub>3</sub> as a preservative
<b>Concentration</b>	-
<b>Volume</b>	100 ul
<b>Label</b>	Unlabeled
<b>Specificity</b>	N-syndecan core protein
<b>Cross reactivity</b>	Rat, Mouse
<b>Storage</b>	Shipped at 4°C. Upon arrival aliquot and store at -20°C or below. Aliquot to avoid cycles of freeze/thaw.
<b>Other</b>	Data Link : UniProtKB/Swiss-Prot <a href="#">P33671</a>

<b>Application notes</b>	• Western blotting: 1/10,000
<b>Recommended dilutions</b>	• Immunohistochemistry: 1/10,000 (Paraffin) (Fig.2 / Ref.2)

Other applications have not been tested.  
Optimal dilutions/concentrations should be determined by the end user.

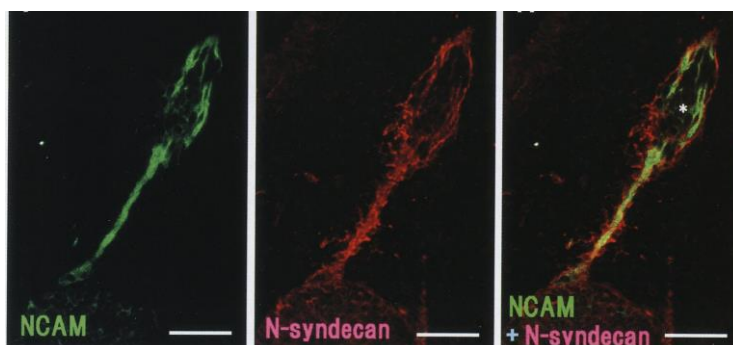
<b>References</b>	1) Watanabe, E., Matsui, F., Keino, H., Ono, K., Kushima, Y., Noda, H., & Oohira, A., A membrane-bound heparan sulfate proteoglycan that is transiently expressed on growing axons in the rat brain, (1996) J. Neurosci. Res., 44, 84-96. 2) Toba, Y., Horie, M., Sango, K., Takashiki, A., Matsui, F., Oohira, A., & Kawano, H., Expression and immunohistochemical localization of heparan sulfate proteoglycan N-syndecan in the migratory pathway from the rat olfactory placode, (2002) Eur. J. Neurosci., May;15(9):1461-73. PMID: 12028356
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## ANTIBODY CHARACTERIZATION



**Fig.1 Characterization of the polyclonal anti-N-syndecan antiserum**

Immunoblotting using anti-Nsyndecan of a partially purified preparation of membrane-bound proteoglycan (lane 1), and that digested with chondroitinase ABC (lane 2), and heparitinase I (lane 3). After the heparitinase I treatment, the immunoreactive band is sifted to an apparent molecular weight of approximately 140 kDa, identical to that of the core glycoprotein of rat N-syndecan.



**Fig.2 Comparative localization of immunoreactivity for N-syndecan in the developing rat (16days) vomeronasal system.**

Double immunofluorescence labelling with anti-NCAM (green) and anti-N-syndecan (red). N-syndecan immunoreactivity surrounds NCAM-immunoreactive vomeronasal axons and their associated cell clusters (asterisk).(Ref.2)

## RELATED PRODUCTS:

Product Name	Maker	Cat#
Anti Chondroitin Sulfate A (2H6) Monoclonal Antibody	CAC	NU-07-001
Anti Neurocan (1G2) Monoclonal Antibody	CAC	NU-07-002
Anti Neuroglycan C (C1) Monoclonal Antibody	CAC	NU-07-003
Anti N-syndecan Polyclonal Antibody	CAC	NU-07-004
Anti Neurocan peptides Polyclonal Antibody	CAC	NU-07-005

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