

Product datasheet for **TA336295**

NG2 (CSPG4) Mouse Monoclonal Antibody [Clone ID: LHM 2]

Product data:

Product Type:	Primary Antibodies
Clone Name:	LHM 2
Applications:	FC, ICC/IF, IHC, IP, WB
Recommended Dilution:	Flow (Cell Surface): 1 - 2.5 ug/mL, Immunoprecipitation: 1:10 - 1:100, Flow Cytometry: 1 ug/ml, Knockout Validated, Immunohistochemistry: 1:200, Immunocytochemistry/ Immunofluorescence: 1:100, Western Blot: 1:1000, Immunohistochemistry-Paraffin: 1:200, Immunohistochemistry-Frozen: 1:200
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1, kappa
Clonality:	Monoclonal
Immunogen:	A 375P cells crude extract
Formulation:	PBS containing 0.05% BSA, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Protein G purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	chondroitin sulfate proteoglycan 4
Database Link:	NP_001888 Entrez Gene 1464 Human Q6UVK1



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Background:

NG2 (Neuron Glial Antigen 2), also known as MCSP, and CSPG4 is a chondroitin surface proteoglycan. Chondroitin surface proteoglycans play a role in stabilizing cell-substratum interactions during early events of cell spreading. At large, proteoglycans are important for cell proliferation and migration, and may act as signal transducers through C-terminal cytoplasmic binding to scaffolding or signaling proteins. The NG2 glycoprotein is a type I membrane protein expressed in the developing and adult central nervous system (CNS) by subpopulations of glia including oligodendroglial precursor cells (OPCs), and in the developing CNS additionally by pericytes. NG2 is located at the apical cell membrane, however it has also been shown to localize to the lamellipodia of astrocytoma upon phosphorylation by PRKCA. Research has found that NG2 may inhibit neuronal growth (PMC1571583), and also acts as a proapoptotic receptor.

Synonyms:

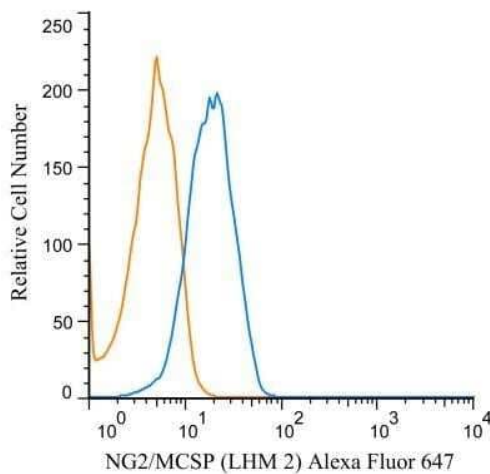
HMW-MAA; MCSP; MCSPG; MEL-CSPG; MSK16; NG2

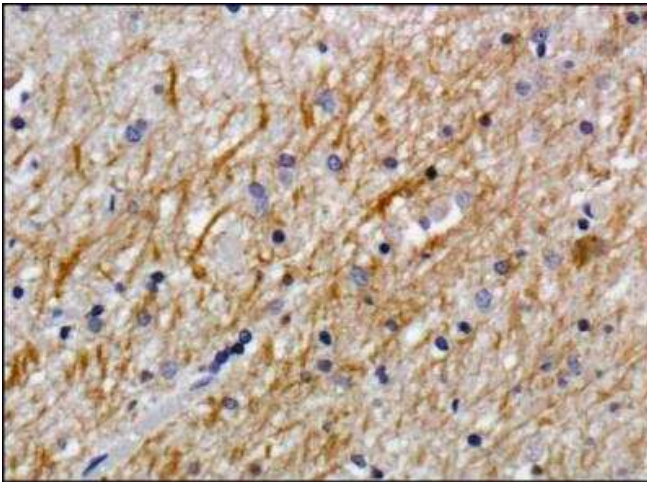
Note:

This NG2 Antibody (LHM 2) is useful for Flow Cytometry, Immunocytochemistry/Immunofluorescence, Immunohistochemistry on both frozen and paraffin-embedded sections, Immunoprecipitation and Western Blot. In WB, a band can be seen at ~300 kDa.

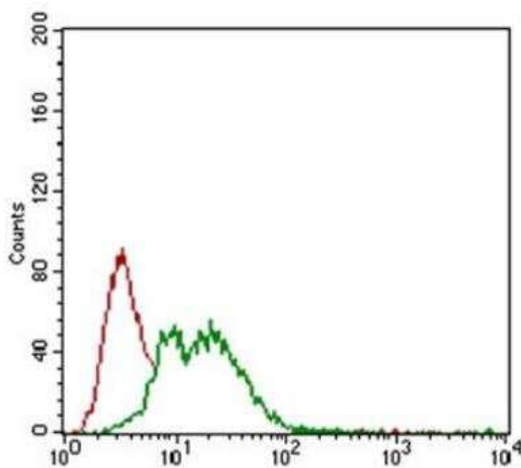
Protein Families:

Transmembrane

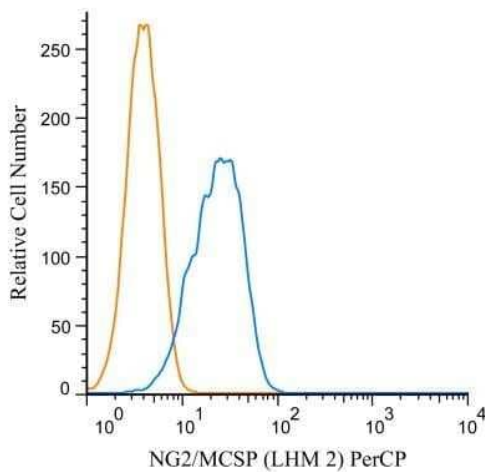
Product images:



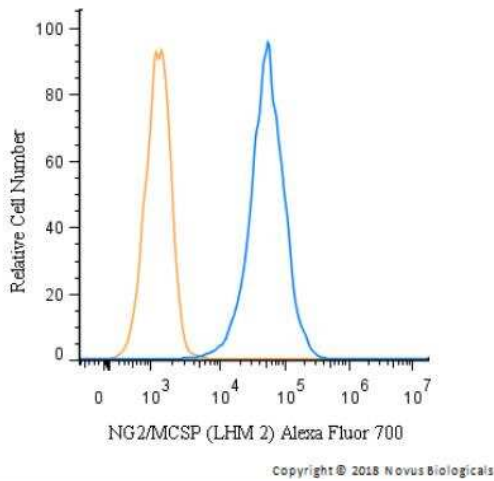
Immunohistochemistry-Paraffin: NG2/MCSP Antibody (LHM 2) TA336295 - Staining of NG2 in human brain using DAB with hematoxylin counterstain.



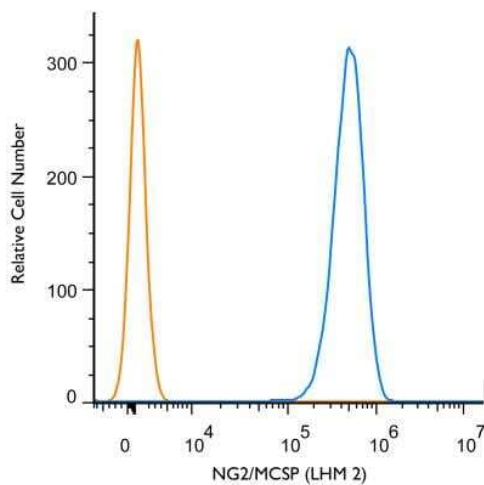
Flow Cytometry: NG2/MCSP Antibody (LHM 2) TA336295 - Antibody was tested at 1:400 in MCF7 cells using an Alexa Fluor 488 secondary (shown in green) alongside unstained cells (shown in red).



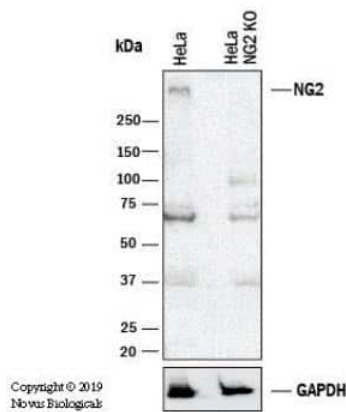
Flow (Cell Surface): NG2/MCSP Antibody (LHM 2) TA336295 - A cell surface stain was performed on U87MG cells with NG2/MCSP antibody (LHM 2) TA336295PCP (blue) and a matched isotype control NBP2-27287PCP (orange). Cells were incubated in an antibody dilution of 2.5 ug/mL for 20 minutes at room temperature. Both antibodies were conjugated to Peridinin-Chlorophyll-Protein complex.



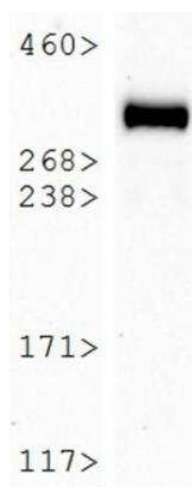
Flow Cytometry: NG2/MCSP Antibody (LHM 2) TA336295 - A cell surface stain was performed on SK-MEL-28 cells with NG2/MCSP antibody (LHM 2) TA336295AF700 (blue) and a matched isotype control (orange). Cells were incubated in an antibody dilution of 5 ug/mL for 20 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 700.



Flow (Cell Surface): NG2/MCSP Antibody (LHM 2) TA336295 - A surface stain was performed on A375 Cells with NG2/MCSP (LHM2) antibody TA336295 (blue) and a matched isotype control NBP1-43319 (orange). Cells were incubated in an antibody dilution of 1 ug/mL for 20 minutes at room temperature, followed by mouse F(ab)2 IgG (H+L) APC-conjugated secondary antibody (F0101B, R&D Systems).



Knockout Validated: NG2/MCSP Antibody (LHM 2) TA336295 - Western blot shows lysates of HeLa human cervical epithelial carcinoma parental cell line and NG2/MCSP (LHM2) knockout (KO) HeLa cell line. PVDF membrane was probed with 1.0 ug/ml of Mouse Anti-Human NG2/MCSP (LHM2) Polyclonal Antibody (Catalog # TA336295) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog #HAF018). Specific band was detected for NG2/MCSP (LHM2) at approximately 300 kDa (as indicated) in the parental HeLa cell line, but is not detectable in the knockout HeLa cell line. This experiment was conducted under reducing conditions.



Western Blot: NG2/MCSP Antibody (LHM 2)
TA336295 - Analysis of NG2 expression in HeLa
whole cell lysate.