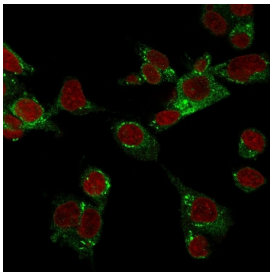
NG2 Antibody / CSPG4 Proteoglycan Antibody [clone LHM 2] (V7819)

Catalog No.	Formulation	Size
V7819-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7819-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7819SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	LHM 2
Purity	Protein G affinity chromatography
UniProt	Q6UVK1
Applications	Immunofluorescence : 1-2ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This NG2 Antibody / CSPG4 Proteoglycan Antibody is available for research use only.



NG2 Antibody HepG2 IF. Immunofluorescent staining of human HepG2 cells using NG2 antibody clone LHM 2 demonstrates punctate cytoplasmic and perinuclear staining consistent with intracellular localization of CSPG4 / NG2-associated proteoglycan signaling compartments. Nuclear counterstain shown in red.

Description

Chondroitin sulfate proteoglycan 4 (CSPG4), commonly known as NG2 or melanoma-associated chondroitin sulfate

proteoglycan (MCSP), is a multifunctional transmembrane proteoglycan involved in cellular signaling, extracellular matrix interaction, migration, and tumor-associated microenvironment regulation. NG2 Antibody / CSPG4 Proteoglycan Antibody [clone LHM 2] recognizes a heavily glycosylated membrane-associated proteoglycan that contributes to cellular communication pathways associated with proliferation, adhesion, and tissue remodeling biology.

NG2 antibody, also referred to as CSPG4 antibody and MCSP antibody in the literature, is widely used in cancer biology, vascular biology, stem cell, and neuroscience research applications. Clone LHM 2 antibody has been utilized in peer-reviewed anti-NG2 studies and remains associated with established CSPG4-related staining applications in tumor-associated and progenitor-like cellular populations.

CSPG4 is primarily localized to the plasma membrane but may additionally demonstrate intracellular trafficking-associated localization patterns depending on cellular context and signaling state. The protein interacts with extracellular matrix components, integrins, receptor tyrosine kinases, and cytoskeletal regulatory pathways that collectively contribute to migration-associated signaling and microenvironmental communication. Through these interactions, NG2 participates in regulation of proliferation, adhesion dynamics, and tissue remodeling processes.

Expression of NG2/CSPG4 has been reported in melanoma, glioblastoma, triple negative breast cancer, sarcoma, hepatocellular-associated cellular models, and additional tumor-associated cellular populations. The protein has also been associated with vascular pericytes, oligodendrocyte precursor cells, activated stromal compartments, and progenitor-associated cell states. Because of its broad involvement in tumor progression and cellular interaction networks, CSPG4 continues to attract interest as a marker of aggressive tumor biology and microenvironment-associated signaling pathways.

In cancer research, NG2 is particularly recognized as a melanoma-associated proteoglycan and tumor progression-related signaling molecule. Elevated CSPG4 expression has been linked to invasive growth characteristics, extracellular matrix remodeling, angiogenesis-associated signaling, and tumor cell plasticity. The protein has additionally been investigated in studies examining stem-like tumor cell populations and therapy resistance-associated cellular phenotypes.

Immunofluorescence staining with NG2 antibodies may demonstrate punctate cytoplasmic, membranous, and perinuclear staining patterns consistent with proteoglycan trafficking and intracellular processing-associated localization states. Because CSPG4 undergoes extensive glycosylation and membrane-associated maturation, staining patterns may vary according to cell type and biologic context. Clone LHM 2 supports investigation of NG2/CSPG4-associated cellular signaling pathways and proteoglycan-associated tumor biology research applications.

The continued use of clone LHM 2 in peer-reviewed anti-NG2 studies supports its utility for investigating CSPG4 expression, tumor-associated signaling pathways, extracellular interaction biology, and NG2-positive cellular populations. Ongoing interest in CSPG4 as a tumor-associated proteoglycan and microenvironment-related signaling molecule further supports the value of NG2 antibodies in cancer and cell biology research.

Together, the available immunofluorescence data and established literature usage support the use of clone LHM 2 for investigating NG2 / CSPG4-associated signaling pathways and proteoglycan biology in tumor and cellular interaction research applications.

Explore additional Cancer Antibodies targeting tumor-associated proteoglycans, stromal signaling proteins, and melanoma-associated cellular pathways.

Application Notes

Optimal dilution of the NG2 Antibody / CSPG4 Proteoglycan Antibody should be determined by the researcher.

Immunogen

A 375P cells crude extract was used as the immunogen for this CSPG4 / NG2 antibody

Storage

Store the CSPG4 / NG2 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

NG2 antibody, CSPG4 antibody, MCSP antibody, melanoma-associated chondroitin sulfate proteoglycan antibody, chondroitin sulfate proteoglycan 4 antibody