

Product datasheet

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ARG59522 anti-NG2 / Chondroitin sulfate proteoglycan 4 antibody

Package: 50 μl Store at: -20°C

Summary

Product Description Rabbit Polyclonal antibody recognizes NG2 / Chondroitin sulfate proteoglycan 4

Tested Reactivity Hu, Ms, Rat

Tested Application ICC/IF, IHC-P, WB

Host Rabbit

Clonality Polyclonal

Isotype IgG

Target Name NG2 / Chondroitin sulfate proteoglycan 4

Species Human

Immunogen Recombinant fusion protein corresponding to aa. 1950-2210 of Human NG2 / Chondroitin sulfate

proteoglycan 4 (NP_001888.2).

Conjugation Un-conjugated

Alternate Names HMW-MAA; MCSPG; Chondroitin sulfate proteoglycan NG2; MCSP; Chondroitin sulfate proteoglycan 4;

MSK16; NG2; Melanoma chondroitin sulfate proteoglycan; MEL-CSPG; Melanoma-associated

chondroitin sulfate proteoglycan

Application Instructions

Application table	Application	Dilution
	ICC/IF	1:50 - 1:200
	IHC-P	1:50 - 1:200
	WB	1:500 - 1:2000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	HeLa	
Observed Size	320 kDa	

Properties

Form Liquid

Purification Affinity purified.

Buffer PBS (pH 7.3), 0.02% Sodium azide and 50% Glycerol.

Preservative 0.02% Sodium azide

Stabilizer 50% Glycerol

Storage instruction For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw

For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol

CSPG4

Gene Full Name

chondroitin sulfate proteoglycan 4

Background

Chondroitin sulfate proteoglycan 4 (CSPG4): A human melanoma-associated chondroitin sulfate proteoglycan plays a role in stabilizing cell-substratum interactions during early events of melanoma cell spreading on endothelial basement membranes. CSPG4 represents an integral membrane chondroitin sulfate proteoglycan expressed by human malignant melanoma cells. [provided by RefSeq, Jul 2008]

Function

Proteoglycan playing a role in cell proliferation and migration which stimulates endothelial cells motility during microvascular morphogenesis. May also inhibit neurite outgrowth and growth cone collapse during axon regeneration. Cell surface receptor for collagen alpha 2(VI) which may confer cells ability to migrate on that substrate. Binds through its extracellular N-terminus growth factors, extracellular matrix proteases modulating their activity. May regulate MPP16-dependent degradation and invasion of type I collagen participating in melanoma cells invasion properties. May modulate the plasminogen system by enhancing plasminogen activation and inhibiting angiostatin. Functions also as a signal transducing protein by binding through its cytoplasmic C-terminus scaffolding and signaling proteins. May promote retraction fiber formation and cell polarization through Rho GTPase activation. May stimulate alpha-4, beta-1 integrin-mediated adhesion and spreading by recruiting and activating a signaling cascade through CDC42, ACK1 and BCAR1. May activate FAK and ERK1/ERK2 signaling cascades. [UniProt]

Research Area

Angiogenesis Study antibody; Mural cell Marker antibody

Calculated Mw

251 kDa

PTM

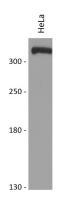
O-glycosylated; contains glycosaminoglycan chondroitin sulfate which are required for proper localization and function in stress fiber formation (By similarity). Involved in interaction with MMP16 and ITGA4.

Phosphorylation by PRKCA regulates its subcellular location and function in cell motility. [UniProt]

Cellular Localization

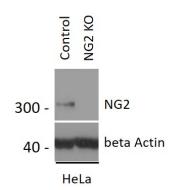
Cell membrane; Single-pass type I membrane protein; Extracellular side. Apical cell membrane; Single-pass type I membrane protein; Extracellular side. Cell projection, lamellipodium membrane; Single-pass type I membrane protein; Extracellular side. Cell surface. Note=Localized at the apical plasma membrane it relocalizes to the lamellipodia of astrocytoma upon phosphorylation by PRKCA. Localizes to the retraction fibers. Localizes to the plasma membrane of oligodendrocytes. [UniProt]

Images



ARG59522 anti-NG2 / Chondroitin sulfate proteoglycan 4 antibody WB image

Western blot: 25 μg of HeLa cell lysate stained with ARG59522 anti-NG2 / Chondroitin sulfate proteoglycan 4 antibody at 1:1000 dilution.



ARG59522 anti-NG2 / Chondroitin sulfate proteoglycan 4 antibody WB image

Western blot: $25~\mu g$ of extracts from normal (control) and NG2 knockout (KO) HeLa cells, using ARG59522 anti-NG2 / Chondroitin sulfate proteoglycan 4 antibody at 1:500 dilution.