

KD-Validated Anti-Chondroitin sulfate proteoglycan 4 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1333

Product Information

Application	WB, FC, ICC
Primary Accession	Q6UVK1
Reactivity	Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	23GB3470
Calculated MW	250537
Gene Name	CSPG4
Aliases	CSPG4; Chondroitin Sulfate Proteoglycan 4; MCSP; Melanoma-Associated Chondroitin Sulfate Proteoglycan; MEL-CSPG; HMW-MAA; CSPG4A ; MCSPG; MSK16; NG2; Chondroitin Sulfate Proteoglycan 4 (Melanoma-Associated); Melanoma Chondroitin Sulfate Proteoglycan; Chondroitin Sulfate Proteoglycan NG2; EC 2.7.8; EC 3.6.3
Immunogen	A synthesized peptide derived from human NG2

Additional Information

Gene ID	1464
Other Names	Chondroitin sulfate proteoglycan 4, Chondroitin sulfate proteoglycan NG2, Melanoma chondroitin sulfate proteoglycan, Melanoma-associated chondroitin sulfate proteoglycan, CSPG4, MCSP

Protein Information

Name	CSPG4
Synonyms	MCSP
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. Also functions 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.

Cellular Location

Cell membrane {ECO:0000250|UniProtKB:Q00657}; Single-pass type I membrane protein {ECO:0000250|UniProtKB:Q00657}; Extracellular side {ECO:0000250|UniProtKB:Q00657}. Apical cell membrane {ECO:0000250|UniProtKB:Q00657}; Single-pass type I membrane protein {ECO:0000250|UniProtKB:Q00657}; Extracellular side {ECO:0000250|UniProtKB:Q00657}. Cell projection, lamellipodium membrane {ECO:0000250|UniProtKB:Q00657}; Single-pass type I membrane protein {ECO:0000250|UniProtKB:Q00657}; Extracellular side {ECO:0000250|UniProtKB:Q00657}. Cell surface {ECO:0000250|UniProtKB:Q00657}. 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 (By similarity) {ECO:0000250|UniProtKB:Q00657, ECO:0000250|UniProtKB:Q8VHY0}

Tissue Location

Detected in fibroblasts (at protein level) (PubMed:36213313). Detected in placenta (at protein level) (PubMed:32337544). Detected in malignant melanoma cells

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