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

Rabbit monoclonal antibody
Catalog # AGI1333

Specification

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

Application	**WB, FC, ICC**
Primary Accession	Q6UVK1
Reactivity	**Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 251 kDa , observed, 280 kDa KDa**
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**

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

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

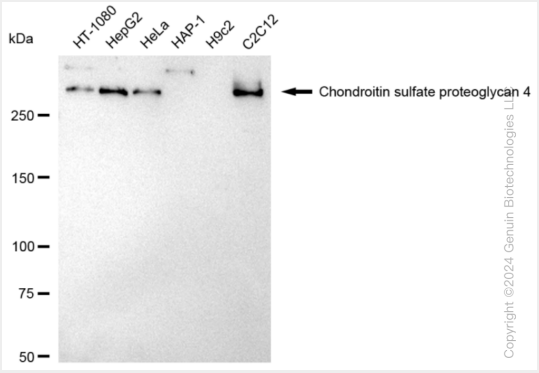
Tissue Location
Detected in fibroblasts (at protein level) (PubMed:36213313). Detected in placenta (at protein level) (PubMed:32337544). Detected in malignant melanoma cells

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

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

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



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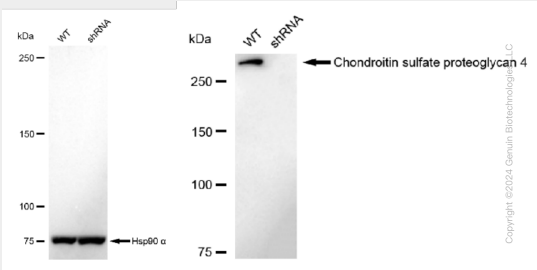
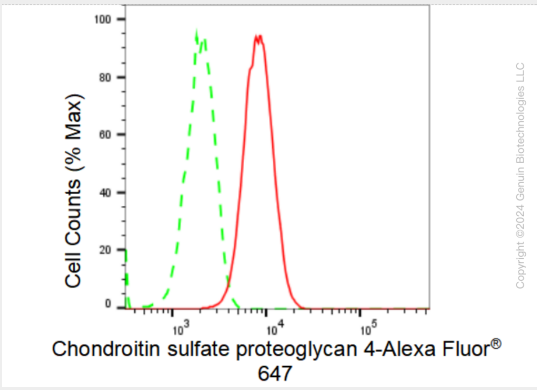
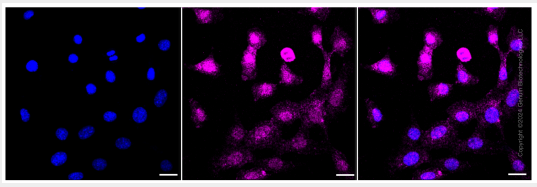
Western blotting analysis using anti-Chondroitin sulfate proteoglycan 4 antibody (Cat#AGI1333). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Chondroitin sulfate proteoglycan 4 antibody (Cat#AGI1333, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-Chondroitin sulfate proteoglycan 4 antibody (Cat#AGI1333). Chondroitin sulfate proteoglycan 4 expression in wild type (WT) and Chondroitin sulfate proteoglycan 4 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-Chondroitin sulfate proteoglycan 4 antibody (Cat#AGI1333, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of Chondroitin sulfate proteoglycan 4 expression in C2C12 cells using Chondroitin sulfate proteoglycan 4 antibody (Cat#AGI1333, 1:2,000). Green, isotype control; red, Chondroitin sulfate proteoglycan 4.



Immunocytochemical staining of C2C12 cells with Chondroitin sulfate proteoglycan 4 antibody (Cat#AGI1333, 1:1,000). Nuclei were stained blue with DAPI; Chondroitin sulfate proteoglycan 4 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.