

For Research Use Only

# CSPG4,NG2 Polyclonal antibody



Catalog Number: 55027-1-AP

9 Publications

## Basic Information

<b>Catalog Number:</b> 55027-1-AP	<b>GenBank Accession Number:</b> NM_001897	<b>Purification Method:</b> Antigen affinity purification
<b>Size:</b> 150ul , Concentration: 800 µg/ml by Nanodrop and 333 µg/ml by Bradford method using BSA as the standard;	<b>GeneID (NCBI):</b> 1464	<b>Recommended Dilutions:</b> WB 1:500-1:2000 IHC 1:50-1:500
<b>Source:</b> Rabbit	<b>Full Name:</b> chondroitin sulfate proteoglycan 4	
<b>Isotype:</b> IgG	<b>Calculated MW:</b> 251 kDa	
	<b>Observed MW:</b> 240-250 kDa	

## Applications

<b>Tested Applications:</b> IHC, WB,ELISA	<b>Positive Controls:</b> WB : A375 cells, IHC : human lung cancer tissue,
<b>Cited Applications:</b> IF, IHC, WB	
<b>Species Specificity:</b> human, mouse, rat	
<b>Cited Species:</b> human, mouse, rat	
<b>Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0</b>	

## Background Information

CSPG4, also named as HMW-MAA, MCSP, MCSPG, MEL-CSPG, MSK16 and NG2, is a proteoglycan playing a role in cell proliferation and migration which stimulates endothelial cells motility during microvascular morphogenesis. CSPG4 may inhibit neurite outgrowth and growth cone collapse during axon regeneration. It is cell surface receptor for collagen alpha 2(VI) which may confer cells ability to migrate on that substrate. CSPG4 may regulate MMP16-dependent degradation and invasion of type I collagen participating in melanoma cells invasion properties. It modulates the plasminogen system by enhancing plasminogen activation and inhibiting angiostatin. CSPG4 functions as a signal transducing protein by binding through its cytoplasmic C-terminus scaffolding and signaling proteins. It promotes retraction fiber formation and cell polarization through Rho GTPase activation and stimulates alpha-4, beta-1 integrin-mediated adhesion and spreading by recruiting and activating a signaling cascade through CDC42, ACK1 and BCAR1. CSPG4 activates FAK and ERK1/ERK2 signaling cascades. The antibody is specific to CSPG4.

## Notable Publications

Author	Pubmed ID	Journal	Application
Lirong Liang	34585785	J Pineal Res	WB
Yu Shen	31563141	J Neurochem	
Shuisheng Yu	34646136	Front Pharmacol	IF

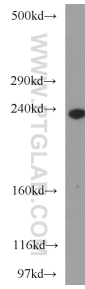
## Storage

**Storage:**  
Store at -20°C.  
**Storage Buffer:**  
0.1M NaHCO<sub>3</sub>, 0.1M glycine, 0.02% sodium azide and 50% glycerol pH 7.3.  
Aliquoting is unnecessary for -20°C storage

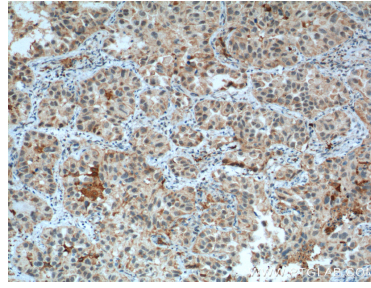
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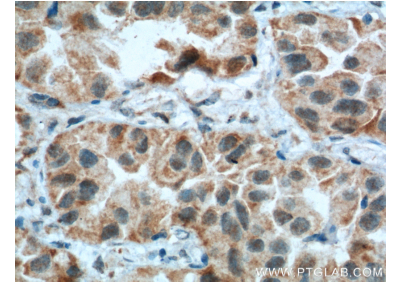
## Selected Validation Data



A375 cells were subjected to SDS PAGE followed by western blot with 55027-1-AP (CSPG4,NG2 antibody) at dilution of 1:300 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 55027-1-AP (CSPG4,NG2 Antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 55027-1-AP (CSPG4,NG2 Antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).