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EXT2 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9401c

Product Information

Application	WB, IHC-P, IF, FC, E
Primary Accession	Q93063
Other Accession	P70428, O77783
Reactivity	Human
Predicted	Mouse, Bovine, Rat, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB23548
Calculated MW	82255
Antigen Region	182-209

Additional Information

Gene ID	2132
Other Names	Exostosin-2, Glucuronosyl-N-acetylglucosaminyl-proteoglycan/N-acetylglucosaminyl-proteoglycan 4-alpha-N-acetylglucosaminyltransferase, Multiple exostoses protein 2, Putative tumor suppressor protein EXT2, EXT2
Target/Specificity	This EXT2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 182-209 amino acids from the Central region of human EXT2.
Dilution	WB~~1:1000 IHC-P~~1:100~500 IF~~1:10~50 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	EXT2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	EXT2 (HGNC:3513)

Function	Glycosyltransferase forming with EXT1 the heterodimeric heparan sulfate polymerase which catalyzes the elongation of the heparan sulfate glycan backbone (PubMed:22660413, PubMed:36402845, PubMed:36593275). Glycan backbone extension consists in the alternating transfer of (1->4)-beta-D-GlcA and (1->4)-alpha-D-GlcNAc residues from their respective UDP-sugar donors. Both EXT1 and EXT2 are required for the full activity of the polymerase since EXT1 bears the N- acetylglucosaminyl-proteoglycan 4-beta-glucuronosyltransferase activity within the complex while EXT2 carries the glucuronosyl-N- acetylglucosaminyl-proteoglycan 4-alpha-N-acetylglucosaminyltransferase activity (PubMed:36402845, PubMed:36593275). Heparan sulfate proteoglycans are ubiquitous components of the extracellular matrix and play an important role in tissue homeostasis and signaling (PubMed:19344451, PubMed:22660413).
Cellular Location	Golgi apparatus membrane; Single-pass type II membrane protein. Golgi apparatus, cis-Golgi network membrane; Single-pass type II membrane protein. Endoplasmic reticulum membrane; Single-pass type II membrane protein. Secreted {ECO:0000250|UniProtKB:O77783}. Note=The active heparan sulfate polymerase complex composed of EXT1 and EXT2 is localized to the Golgi apparatus. If both proteins are individually detected in the endoplasmic reticulum, the formation of the complex promotes their transport to the Golgi.
Tissue Location	Widely expressed..

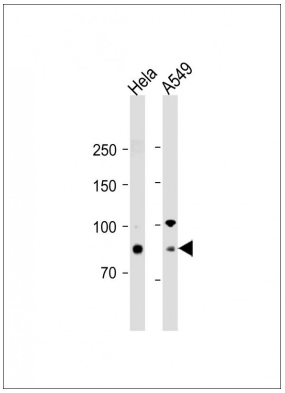
Background

EXT2 encodes one of two glycosyltransferases involved in the chain elongation step of heparan sulfate biosynthesis.

References

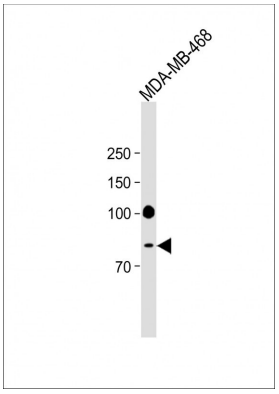
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Heinritz, W., et al. Ann. Hum. Genet. 73 (PT 3), 283-291 (2009)
Cornelis, M.C., et al. Ann. Intern. Med. 150(8):541-550(2009)

Images

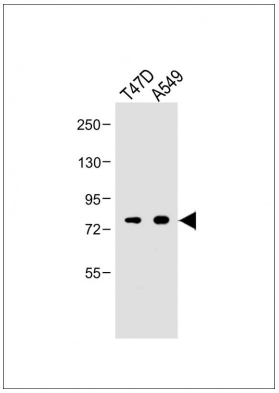


All lanes: Anti-EXT2 Antibody (Center) at 1:1000 dilution Lane 1: Hela whole cell lysate Lane 2: A549 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 82 KDa Blocking/Dilution buffer: 5% NFDM/TBST.

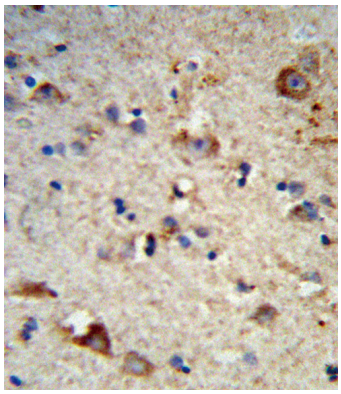
All lanes: Anti-EXT2 Antibody (Center) at 1:500 dilution + MDA-MB-468 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L),



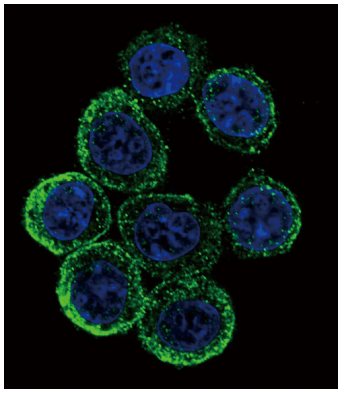
Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 82 KDa Blocking/Dilution buffer: 5% NFDM/TBST.



All lanes : Anti-EXT2 Antibody (Center) at 1:1000 dilution Lane 1: T47D whole cell lysate Lane 2: A549 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 82 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

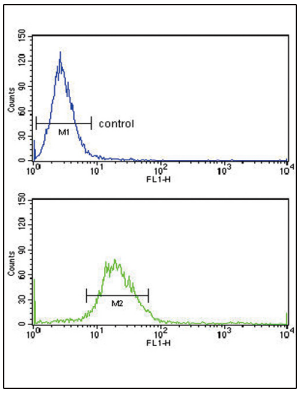


Formalin-fixed and paraffin-embedded human brain tissue reacted with EXT2 Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Confocal immunofluorescent analysis of EXT2 Antibody (Center)(Cat#AP9401c) with hela cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green). DAPI was used to stain the cell nuclear (blue).

EXT2 Antibody (Center) (Cat. #AP9401c) flow cytometry analysis of Hela cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.