10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

EXT1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16833c

Product Information

Application	WB, E
Primary Accession	Q16394
Other Accession	P97464, Q9JK82, A5D7I4, NP_000118.2
Reactivity	Human, Mouse
Predicted	Bovine, Hamster, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB36570
Calculated MW	86255
Antigen Region	298-326

Additional Information

Gene ID	2131
Other Names	Exostosin-1, Glucuronosyl-N-acetylglucosaminyl-proteoglycan/N-acetylglucosaminyl-proteoglycan 4-alpha-N-acetylglucosaminyltransferase, Multiple exostoses protein 1, Putative tumor suppressor protein EXT1, EXT1
Target/Specificity	This EXT1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 298-326 amino acids from the Central region of human EXT1.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. 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	EXT1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	EXT1 (HGNC:3512)
Function	Glycosyltransferase forming with EXT2 the heterodimeric heparan sulfate

	polymerase which catalyzes the elongation of the heparan sulfate glycan backbone (PubMed:10639137, PubMed:22660413, PubMed:36402845, PubMed:36593275, PubMed:9620772). 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:10639137, PubMed:11391482, PubMed:22660413, PubMed:9620772).
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. 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..

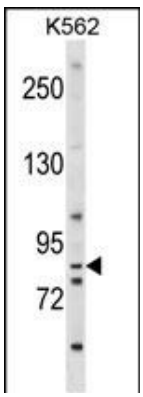
Background

This gene encodes an endoplasmic reticulum-resident type II transmembrane glycosyltransferase involved in the chain elongation step of heparan sulfate biosynthesis. Mutations in this gene cause the type I form of multiple exostoses. [provided by RefSeq].

References

Zuntini, M., et al. Oncogene 29(26):3827-3834(2010)
Wen, W., et al. Genet Test Mol Biomarkers 14(3):371-376(2010)
Li, Y., et al. Pathology 42(1):91-93(2010)
Baasanjav, S., et al. BMC Med. Genet. 11, 110 (2010) :
Ludecke, H.J., et al. Genomics 40(2):351-354(1997)

Images



EXT1 Antibody (Center) (Cat. #AP16833c) western blot analysis in K562 cell line lysates (35ug/lane).This demonstrates the EXT1 antibody detected the EXT1 protein (arrow).