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HAS2 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP5687C

Product Information

Application	WB, E
Primary Accession	Q92819
Other Accession	NP_005319.1
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	63566
Antigen Region	138-166

Additional Information

Gene ID	3037
Other Names	Hyaluronan synthase 2, Hyaluronate synthase 2, Hyaluronic acid synthase 2, HA synthase 2, HAS2
Target/Specificity	This HAS2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 138-166 amino acids of human HAS2.
Dilution	WB~~1:1000 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	HAS2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	HAS2 (HGNC:4819)
Function	Catalyzes the addition of GlcNAc or GlcUA monosaccharides to the nascent hyaluronan polymer (Probable) (PubMed:20507985, PubMed:21228273, PubMed:23303191, PubMed:32993960). Therefore, it is essential to hyaluronan synthesis a major component of most extracellular matrices that has a structural role in tissues architectures and regulates cell adhesion,

	migration and differentiation (PubMed:20507985, PubMed:21228273, PubMed:8798477). This is one of three isoenzymes responsible for cellular hyaluronan synthesis and it is particularly responsible for the synthesis of high molecular mass hyaluronan (By similarity).
Cellular Location	Cell membrane; Multi-pass membrane protein Endoplasmic reticulum membrane; Multi- pass membrane protein. Vesicle. Golgi apparatus membrane; Multi-pass membrane protein. Lysosome Note=Travels from endoplasmic reticulum (ER), Golgi to plasma membrane and either back to endosomes and lysosomes, or out into extracellular vesicles (PubMed:30394292). Post-translational modifications control HAS2 trafficking (PubMed:30394292).
Tissue Location	Expressed in fibroblasts.

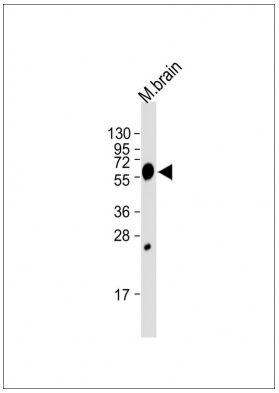
Background

Hyaluronan or hyaluronic acid (HA) is a high molecular weight unbranched polysaccharide synthesized by a wide variety of organisms from bacteria to mammals, and is a constituent of the extracellular matrix. It consists of alternating glucuronic acid and N-acetylglucosamine residues that are linked by beta-1-3 and beta-1-4 glycosidic bonds. HA is synthesized by membrane-bound synthase at the inner surface of the plasma membrane, and the chains are extruded through pore-like structures into the extracellular space. It serves a variety of functions, including space filling, lubrication of joints, and provision of a matrix through which cells can migrate. HA is actively produced during wound healing and tissue repair to provide a framework for ingrowth of blood vessels and fibroblasts. Changes in the serum concentration of HA are associated with inflammatory and degenerative arthropathies such as rheumatoid arthritis. In addition, the interaction of HA with the leukocyte receptor CD44 is important in tissue-specific homing by leukocytes, and overexpression of HA receptors has been correlated with tumor metastasis. HAS2 is a member of the newly identified vertebrate gene family encoding putative hyaluronan synthases, and its amino acid sequence shows significant homology to glycosaminoglycan synthetase (DG42) from Xenopus laevis, and human and murine hyaluronan synthase 1.

References

Simpson, M.A., et al. J. Biol. Chem. 277(12):10050-10057(2002) Spicer, A.P., et al. Biochem. Soc. Trans. 27(2):109-115(1999) Spicer, A.P., et al. Genomics 41(3):493-497(1997) Watanabe, K., et al. J. Biol. Chem. 271(38):22945-22948(1996)

Images



All lanes : Anti-HAS2 Antibody (Center) at 1:1000 dilution Lane1: mouse brain lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size :64kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Citations

- Vulnerability to shear stress caused by altered peri-endothelial matrix is a key feature of Moyamoya disease
- Ameliorative effect of tranexamic acid on physiological skin aging and its sex difference in mice.
- Differential expression of hyaluronan synthase 2 in breast carcinoma and its biological significance.
- Gene expression profile of a newly established choriocarcinoma cell line, iC3-1, compared to existing choriocarcinoma cell lines and normal placenta.