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HAS1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP4928c

Product Information

Application	WB, E
Primary Accession	Q92839
Other Accession	Q61647
Reactivity	Human, Rat, Mouse
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB24040
Calculated MW	64832
Antigen Region	166-193

Additional Information

Gene ID	3036
Other Names	Hyaluronan synthase 1, Hyaluronate synthase 1, Hyaluronic acid synthase 1, HA synthase 1, HuHAS1, HAS1, HAS
Target/Specificity	This HAS1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 166-193 amino acids from the Central region of human HAS1.
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 prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	HAS1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	HAS1
Synonyms	HAS

Function	Catalyzes the addition of GlcNAc or GlcUA monosaccharides to the nascent hyaluronan polymer. 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. This is one of the isozymes catalyzing that reaction. Also able to catalyze the synthesis of chito- oligosaccharide depending on the substrate (By similarity).
Cellular Location	Membrane; Multi-pass membrane protein
Tissue Location	Widely expressed. Highly expressed in ovary followed by spleen, thymus, prostate, testes and large intestine Weakly expressed in small intestine.

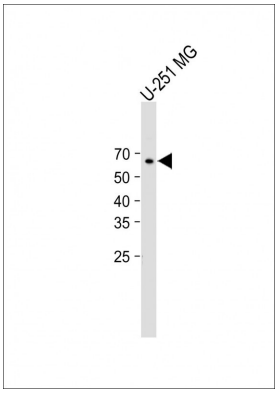
Background

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. HAS1 is a member of the newly identified vertebrate gene family encoding putative hyaluronan synthases, and its amino acid sequence shows significant homology to the hasA gene product of Streptococcus pyogenes, a glycosaminoglycan synthetase (DG42) from Xenopus laevis, and a recently described murine hyaluronan synthase.

References

Vigetti, D., et al. J. Biol. Chem. 284(44):30684-30694(2009)
Berdiaki, A., et al. Biochim. Biophys. Acta 1790(10):1258-1265(2009)
Ghosh, A., et al. J. Biol. Chem. 284(28):18840-18850(2009)

Images



All lanes : Anti-HAS1 Antibody (Center) at 1:1000 dilution Lane 1: U-251 MG 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 : 65kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Citations

- Regulation of the hyaluronan system in ovine endometrium by ovarian steroids.

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