

HAS2 antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP50809

Product Information

Application	WB, IHC-F, IF, E
Primary Accession	Q92819
Reactivity	Human, Mouse, Rat, Chicken, Horse, Pig, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	63566
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human HAS2/Hyaluronan synthase 2
Epitope Specificity	401-500/552
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Membrane.
SIMILARITY	Belongs to the nodC/HAS family.
Post-translational modifications	Autophosphorylated on several Ser and Thr residues. Autophosphorylation of Thr-451 is dependent on Thr-446 and is stimulated by dsRNA binding and dimerization. Autophosphorylation apparently leads to the activation of the kinase.
DISEASE	Note=A chromosomal aberration involving HAS2 may be a cause of lipoblastomas, which are benign tumors resulting from transformation of adipocytes, usually diagnosed in children. 8q12.1 to 8q24.1 intrachromosomal rearrangement with PLAG1.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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

Additional Information

Gene ID	3037
Other Names	Hyaluronan synthase 2, Hyaluronate synthase 2, Hyaluronic acid synthase 2, HA synthase 2, HAS2
Target/Specificity	Expressed in fibroblasts.
Dilution	WB=1:500-2000,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1ug/Test,ELISA=1:500 0-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glycerol
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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.

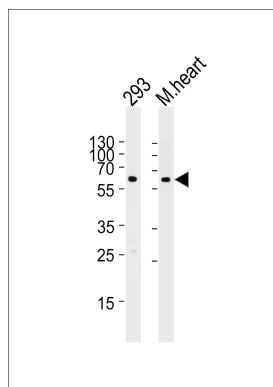
Background

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 and it is particularly responsible for the synthesis of high molecular mass hyaluronan. Required for the transition of endocardial cushion cells into mesenchymal cells, a process crucial for heart development. May also play a role in vasculogenesis. High molecular mass hyaluronan also play a role in early contact inhibition a process which stops cell growth when cells come into contact with each other or the extracellular matrix (By similarity).

References

Watanabe K.,et al.J. Biol. Chem. 271:22945-22948(1996).
Morerio C.,et al.Cancer Genet. Cytogenet. 156:183-184(2005).

Images



Western blot analysis of lysates from 293 cell line and mouse heart tissue lysate, using HAS2 antibody, was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35ug per lane.

Citations

- [Role of Hyaluronan and Glucose on 4-Methylumbelliferone-inhibited Cell Proliferation in Breast Carcinoma Cells.](#)

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