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HAS2 Rabbit pAb

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Catalog # AP50809

Product Information

Application	WB
Primary Accession	Q92819
Reactivity	Human
Predicted	Mouse, Rat, Chicken, Pig, Horse, Rabbit, 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 glycosaminoglycan synthetase (DG42) from Xenopus laevis, and human and murine hyaluronan synthase 1. [provided by RefSeq, Jul 2008]

Additional Information

Gene ID	3037
Other Names	Hyaluronan synthase 2, 2.4.1.212, Hyaluronate synthase 2, Hyaluronic acid synthase 2, HA synthase 2, HAS2 (HGNC:4819)
Target/Specificity	Expressed in fibroblasts.
Dilution	WB=1:500-2000,Flow-Cyt=1ug/Test
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

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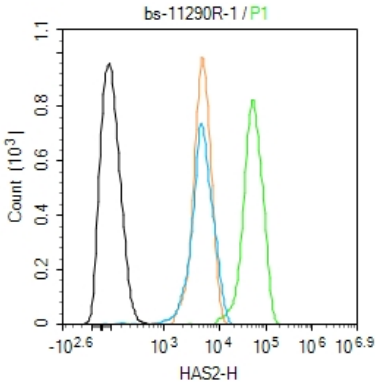
overexpression of HA receptors has been correlated with tumor metastasis. HAS2 is a member of the newly identified vertebrate gene family encoding putative hyaluronan synthases, and its amino acid sequence shows significant homology to glycosaminoglycan synthetase (DG42) from Xenopus laevis, and human and murine hyaluronan synthase 1. [provided by RefSeq, Jul 2008]

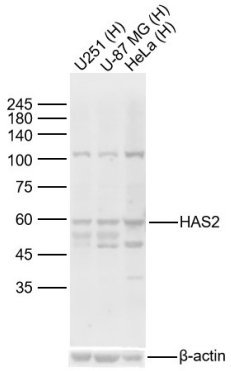
References

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

Images



Blank control(black line):Hela.
Primary Antibody (green line): Rabbit Anti-HAS2 antibody (AP50809)
Dilution:1ug/Test;
Secondary Antibody(white blue line): Goat anti-rabbit IgG-AF488
Dilution: 0.5ug/Test.
Isotype control(orange line): Normal Rabbit IgG
Protocol
The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at -20℃, The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.



Sample:
Lane 1: Human U251 cell Lysates
Lane 2: Human U-87 MG cell Lysates
Lane 3: Human Hela cell Lysates

Primary: Anti-HAS2 (AP50809) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 64kDa
Observed band size: 60kDa

Citations

- Role of Hyaluronan and Glucose on 4-Methylumbelliferone-inhibited Cell Proliferation in Breast Carcinoma Cells.

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