

HAS2 Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP5687C**Specification**

HAS2 Antibody (Center) - Product Information

Application	WB, IHC-P, FC,E
Primary Accession	O92819
Other Accession	NP_005319.1
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	138-166

HAS2 Antibody (Center) - 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.

DilutionWB~~1:1000
IHC-P~~1:50~100
FC~~1:10~50**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

HAS2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

HAS2 Antibody (Center) - Protein Information**Name** HAS2 ([HGNC:4819](#))**Function** Catalyzes the addition of GlcNAc or GlcUA monosaccharides to the nascent hyaluronan

polymer (PubMed:[20507985](#), PubMed:[32993960](#), PubMed:[23303191](#), PubMed:[21228273](#)) (Probable). 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:[8798477](#), PubMed:[21228273](#), PubMed:[20507985](#)). 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

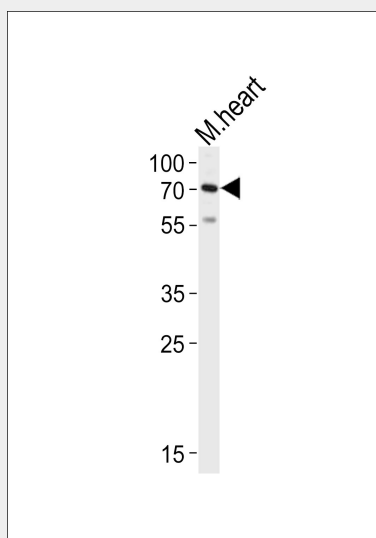
Expressed in fibroblasts.

HAS2 Antibody (Center) - Protocols

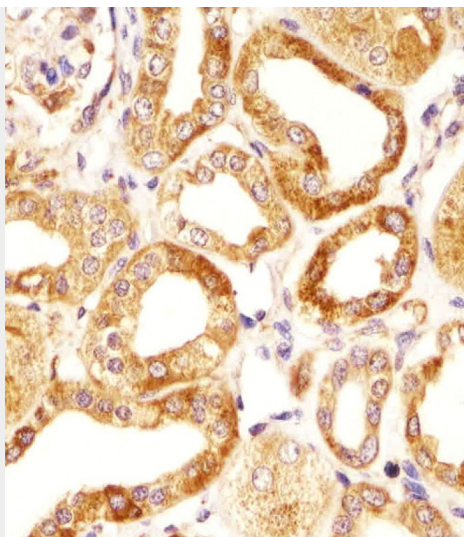
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

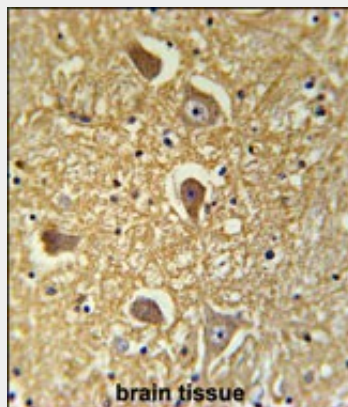
HAS2 Antibody (Center) - Images



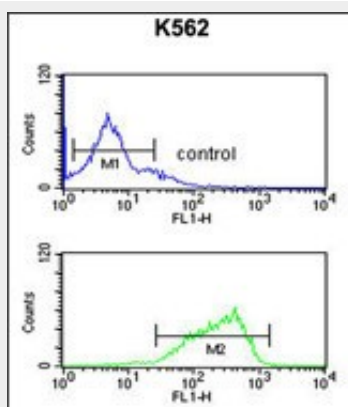
Western blot analysis of lysate from mouse heart tissue lysate, using HAS2 Antibody (Center)(Cat. #AP5687c). AP5687c was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysate at 20ug.



Immunohistochemical analysis of paraffin-embedded H. kidney section using HAS2 Antibody (Center)(Cat#AP5687C). AP5687C was diluted at 1:25 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.



HAS2 Antibody (Center) (Cat. #AP5687c) immunohistochemistry analysis in formalin fixed and paraffin embedded human brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the HAS2 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.



HAS2 Antibody (Center) (Cat. #AP5687c) flow cytometric analysis of K562 cells (bottom histogram) compared to a negative control (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

HAS2 Antibody (Center) - 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.

HAS2 Antibody (Center) - 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)

HAS2 Antibody (Center) - 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.](#)