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HAS1 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1433a

Product Information

Application	WB, ICC, E
Primary Accession	Q92839
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	3E10
Isotype	IgG1
Calculated MW	64704
Description	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.
Immunogen	Purified recombinant fragment of human HAS1 expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	3036
Other Names	Hyaluronan synthase 1, 2.4.1.212, Hyaluronate synthase 1, Hyaluronic acid synthase 1, HA synthase 1, HuHAS1, HAS1, HAS
Dilution	WB~~1/500 - 1/2000 ICC~~N/A E~~N/A

Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	HAS1 Antibody 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 for the synthesis of hyaluronan, a major component of most extracellular matrices that has a structural role in tissue architecture 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.

References

1. Clin Lymphoma. 2005 Mar;5(4):253-6. 2. Mol Cell Biochem. 2006 Nov;292(1-2):169-78. 3. J Biol Chem. 2008 Jun 13;283(24):16781-9.

Images

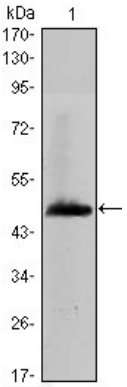
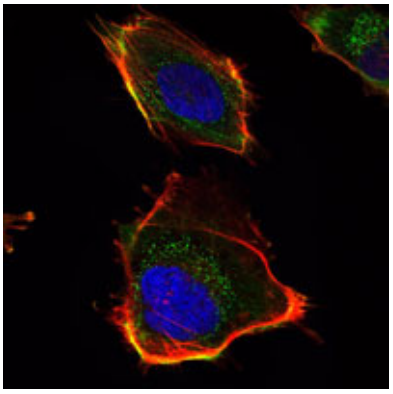


Figure 1: Western blot analysis using HAS1 mAb against human HAS1 (AA: 74-243) recombinant protein. (Expected MW is 44.4 kDa)

Figure 2: Immunofluorescence analysis of U251 cells using HAS1 mAb (green). Red: Actin filaments have been labeled with DY-554 phalloidin. Blue: DRAQ5 fluorescent DNA dye.



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