Recombinant Human HAS1 Protein, His-tagged

Cat. No. HAS1-2229H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human HAS1 Protein (Tyr160-Ala416) with a N-His tag was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	Tyr160-Ala416
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

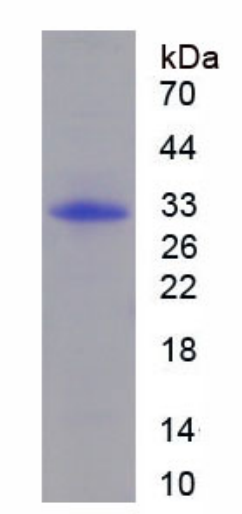
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	synthases, and its amino acid sequence shows significant homology to the hasA gene product of Streptococcus pyogenes, a glycosaminoglycan synthetase (DG42) from Xenopus laevis, and a recently described murine hyaluronan synthase. Alternative splicing results in multiple transcript variants.
Form	Freeze-dried powder
Molecular Mass	Predicted Molecular Mass: 34.4 kDa Accurate Molecular Mass: 33 kDa
Endotoxin	<1.0 EU per 1μg (determined by the LAL method).
Purity	> 95%
Applications	Positive Control; Immunogen; SDS-PAGE; WB.
Stability	The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 centigrade for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8 centigrade for one month. Aliquot and store at -80 centigrade for 12 months.
Storage Buffer	20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Reconstitution	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

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Gene Name	HAS1 hyaluronan synthase 1 [Homo sapiens (human)]
Official Symbol	HAS1
Synonyms	HAS1; hyaluronan synthase 1; HAS; huHAS1; HA synthase 1; hyaluronate synthase 1; hyaluronic acid synthase 1;
Gene ID	3036
mRNA Refseq	NM_001523
Protein Refseq	NP_001514
MIM	601463
UniProt ID	Q92839



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