

# Recombinant Full Length Human HAS1 Protein, GST-tagged

**Cat. No.** HAS1-3483HF    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| <b>Product Overview</b> | Human HAS1 full-length ORF (AAH35837.1, 1 a.a. - 577 a.a.) recombinant protein with GST-tag at N-terminal.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Source</b>           | In Vitro Cell Free System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>ProteinLength</b>    | 577 amino acids                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Description</b>      | <p>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</p> |

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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.  
[provided by RefSeq]

**Molecular Mass** 89.87 kDa

**AA Sequence**

MRQDAPKPTPAARRCSGLARRVLTIAFALLILGLMTWAYAAGVPLASDRYGLLAFLGL  
YGAFLSAHLVAQSLFAYLEHRRVAAAARGPLDAATARSVALTISAYQEDPAYLRQCL  
ASARALLYPRARLRVLMVVDGNRAEDLYMVDMFREVFADDPATYVWDGNYHQ  
WEPAAAGAVGAGAYREVEAEDPGRLAVEALVRTRRCVCVAQRWGGKREVMYTA  
KALGDSMDYVQVCDSDTRLDPMALELVRVLDEDPRVGAVGGDVRILNPLDSWVSF  
LSSLRYSWAFNVERACQSYFHCVSCISGPLGLYRNNLLQQFLEAWYNQKFLGTHCT  
FGDDRHLTNRMLSMGYATKYTSRRCYSETPSSFLRWLSQQTRWSKSYFREWLYN  
ALWWHRHHAWMTYEAVVSGLFPPFFVAATVLRFLYAGRPWALLWVLLCVQGVALAK  
AAFAAWLRGCLRMVLLSLYAPLYMCGLLPAKFLALVTMNQSGWGTSGRRKLAANY  
VPLLPLALWALLLLGGLVRSVAHEARADWSGPSRAAEAYHLAAGAGAYVGYWVAM  
LTLYWVGVRRLCRRRTGGYRVQV

**Applications**

Enzyme-linked Immunoabsorbent Assay  
Western Blot (Recombinant protein)  
Antibody Production  
Protein Array

**Notes**

Best use within three months from the date of receipt of this protein.

**Storage**

Store at -8 centigrade. Aliquot to avoid repeated freezing and thawing.

**Storage Buffer**

50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

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**GENE INFORMATION**

|                        |                                                                                                              |
|------------------------|--------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | HAS1 hyaluronan synthase 1 [ Homo sapiens ]                                                                  |
| <b>Official Symbol</b> | HAS1                                                                                                         |
| <b>Synonyms</b>        | HAS1; hyaluronan synthase 1; HAS; huHAS1; HA synthase 1; hyaluronate synthase 1; hyaluronic acid synthase 1; |
| <b>Gene ID</b>         | 3036                                                                                                         |
| <b>mRNA Refseq</b>     | NM_001523                                                                                                    |
| <b>Protein Refseq</b>  | NP_001514                                                                                                    |
| <b>MIM</b>             | 601463                                                                                                       |
| <b>UniProt ID</b>      | Q92839                                                                                                       |

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