

Product datasheet for **SC123464**

Hyaluronan synthase 1 (HAS1) (BC035837) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Hyaluronan synthase 1 (HAS1) (BC035837) Human Untagged Clone
Tag:	Tag Free
Symbol:	Hyaluronan synthase 1
Synonyms:	HAS; hyaluronan synthase 1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF:

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>OriGene sequence for BC035837 edited
GCAAGCCGGAGAGAAGAGAGAGCCCGGCCAGACCCACTGCGATGAGACAGGACGCGCCCA
AGCCCACTCCTGCAGCCCGCCGCTGCTCCGGCCTGGCCCGGAGGGTGCTGACCATCGCCT
TCGCCCTGCTCATCCTGGGCCTCATGACCTGGGCTACGCCCGCCGGGTGCCGCTGGCCT
CCGATCGTACGGCCTCCTGGCCTTCCGGCTCTACGGGGCCTTCTTTTACGGCACCTGG
TGGCGCAGAGCCTCTTCGCGTACCTGGAGCACCGCGGGTGGCGCGCGCGCGGGGGC
CGCTGGATGCAGCCACCGCGCAGTGTGGCGCTGACCATCTCCGCCTACCAGGAGGACC
CCGCGTACCTGCGCCAGTGCCTGGCGTCCGCCCGCCCTGCTGTACCCGCGCGCGGGC
TGC CGCTCCTCATGGTGGTGGATGGCAACCGCGCCGAGGACCTCTACATGGTCGACATGT
TCCGCGAGGTCTTCGCTGACGAGGACCCCGCCACGTACGTGTGGGACGGCAACTACCACC
AGCCCTGGGAACCCGCGCGCGGGCGCGGTGGGCGCGGAGCCTATCGGGAGGTGGAGG
CGGAGGATCCTGGGCGGCTGGCAGTGGAGGCGCTGGTGGAGACTCGTAGGTGCGTGTGCG
TGGCGCAGCGCTGGGCGGCAAGCGCGAGGTATGTACACAGCCTTCAAGGCGCTCGGAG
ATTCGATGGACTACGTGCAGGTCTGTGACTCGGACACAAGTTGGACCCCATGGCACTGC
TGGAGCTCGTGGGGTACTGGACGAGGACCCCGGGTAGGGGCTGTTGGTGGGGACGTGC
GGATCCTTAACCTCTGGACTCCTGGGTGAGCTTCTTAAGCAGCCTGCGATACTGGGTAG
CCTTCAATGTGGAGCGGGCTTGTGAGAGCTACTTCCACTGTGTATCCTGCATCAGCGGT
CTCTAGGCCTATATAGGAATAACCTCTTGCAGCAGTTTCTTGAGGCCTGGTACAACCAGA
AGTTCTGGGTACCCACTGTACTTTTGGGGATGACCGGCACCTACCAACCGCATGCTCA
GCATGGGTATAGTACCAAGTACACCTCCAGGTCCCGCTGCTACTCAGAGACGCCCTCGT
CCTTCTCGGGTGGCTGAGCCAGCAGACACGCTGGTCCAAGTCGTA CTCCGTGAGTGGC
TGTACAACGCGCTCTGGTGGCACCGGCACCATGCGTGGATGACCTACGAGGCGGTGGTCT
CCGGCCTGTTCCCTTCTTCGTGGCGGCCACTGTGCTGCGTCTGTTCTACGCGGGCCGCC
CTTGGGGCCTGCTGTGGGTGCTGCTGTGCGTGCAGGGCGTGGCACTGGCCAAGGCGGCCT
TCGCGGCCTGGCTGCGGGGCTGCCTGCGCATGGTGTCTGTGCGTCTACGCGCCCTCT
ACATGTGTGGCCTCCTGCCTGCCAAGTTCCTGGCGCTAGTACCATGAACCAGAGTGGCT
GGGGCACCTCGGGCCGCGGAAGCTGGCCGCTAACTACGTCCCTCTGCTGCCCTGGCGC
TCTGGGCGCTGCTGCTGCTTGGGGCCTGGTCCGACGCTAGCACACGAGGCCAGGGCCG
ACTGGAGCGGCCCTTCCCGCGCAGCCGAGGCTACCACTTGGCCGCGGGGCGCGCCT
ACGTGGGCTACTGGGTGGCCATGTTGACGCTGTACTGGGTGGGCGTGGGAGGCTTTGCC
GGCGGCGACCGGGGCTACCGCTCCAGGTGTGAGTCCAGCCACGCGGATGCCGCTCA
AGGGTCTTCAGGGGAGGCCAGAGGAGAGCTGCTGGGCCCGGAGCCACGA ACTTGCTGGGT
GGTCTCTGGGCCTCAGTTTCCCTCCTCTGCAAAACGAGGGGGTACGCCAAGATTCTTC
AGTCTGGACTATATTGGGACTGGGACTTCTGGGTCTCCAGGGAGGGTATTTATTGGTCAG
GGTGTGGGATCTGAGGAGTGGAGGGAAAGGGTCTGCTTTCTCCTCGTTCTATTTAATC
TCCATTTCTACTGTGTGATCAGGATGTAATAAAGAATTTATTTATTTTCAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAA
  
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5' Read Nucleotide Sequence:	>OriGene 5' read for BC035837 unedited GGGGTTTCGCATTTGTATACGACTCATATAGGCGGCCGCGNATTCCTCCGGGATAGCAAGCCG GAGAGAAGAGAGAGCCCCGGCCAGACCCACTGCGATGAGACAGGACGCGCCCAAGCCCACT CCTGCAGCCCCGCGCTGCTCCGGCCTGGCCCGGAGGGTGTGACCATCGCCTTCGCCCTG CTCATCTGGGCCTCATGACCTGGGCCTACGCCGCCGGGTGCCGCTGGCCTCCGATCGC TACGGCCTCCTGGCCTTCGGCCTCTACGGGGCCTTCTTTTCAGCGCACCTGGTGGCGCAG AGCCTCTTCGCGTACCTGGAGCACCGGGGGTGGCGCGCGCGCGGGGGCCGCTGGAT GCAGCCACCGCGCAGTGTGGCCTGACCATCTCCGCCTACCAGGAGGACCCCGCGTAC CTGCGCCAGTGCCTGGCCTCCGCCCGCGCCTGCTGTACCCGCGCGCGGCTGCGCGTC CTCATGGTGGTGGATGGCAACCGCGCCGAGGACCTCTACATGGTGCATGTTCCGCGAG GTCTTCGCTGACGAGGACCCCGCCACGTACGTGTGGGACGGCACTACCACCAGCCCTGG GAACCCGCGCGCGGGCGCGGTGGGCGCCGGAGCCTATCGGGAGGTGGAGGCGGAGGAT CCTGGGCGGCTGGCAGTGGAGGCGCTGGTGGGACTCGTANGTGCCTGTGCGTGGCGCAC CGCTGGGCGGCAAGCGCGAGGTCATGTACACAGCCTTCAAGGCGCTCGNAGATTCGATG GACTACGTGCAGTCTGTGACTCGGACACCAGGTTGGGACCCCATGCACTGCTGGAGCTC GTGCGGGTACTGGACGAANACCCCGGGTAGGGGCTGTTGGTGGGACGTGCGGATCCTT AACCTCTGGACTCN
Restriction Sites:	Please inquire
ACCN:	BC035837
Insert Size:	2119 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none"> 1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	BC035837.1 , AAH35837.1
RefSeq Size:	2119 bp
RefSeq ORF:	1731 bp
Locus ID:	3036
Cytogenetics:	19q13.41
Protein Families:	Druggable Genome, Transmembrane

Gene Summary:

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. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2014]