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Product datasheet for SC116826

Hyaluronan synthase 2 (HAS2) (NM_005328) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Hyaluronan synthase 2 (HAS2) (NM_005328) Human Untagged Clone
Tag:	Tag Free
Symbol:	Hyaluronan synthase 2
Mammalian Cell Selection:	None
Vector:	pCMV6-XL6
E. coli Selection:	Ampicillin (100 ug/mL)

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Fully Sequenced ORF:

>OriGene ORF sequence for NM_005328 edited
ATGCATTGTGAGAGGTTTCTATGTATCCTGAGAATAATTGGAACCACACTCTTTGGAGTC
TCTCTCCTCCTTGGAATCACAGCTGCTTATATTGTTGGCTACCAGTTTATCCAAACGGAT
AATTACTATTTCTCTTTTGGACTGTATGGTGCCTTTTTGGCATCACACCTCATCATCCAA
AGCCTGTTTGCCTTTTTGGAGCACCGAAAAATGAAAAAATCCCTAGAAACCCCCATAAAG
TTGAACAAAACAGTTGCCCTTTGCATCGCTGCCTATCAAGAAGATCCAGACTACTTAAGG
AAATGTTTGCAATCTGTGAAAAGGCTAACCTACCCTGGGATTAAAGTTGTCATGGTCATA
GATGGGAACTCAGAAGATGACCTTTACATGATGGACATCTTCAGTGAAGTCATGGGCAGA
GACAAATCAGCCACTTATATCTGGAAGAACAACTTCCACGAAAAGGGTCCCGGTGAGACA
GATGAGTCACATAAAGAAAGCTCGCAACACGTAACGCAATTGGTCTTGTCCAACAAAAGT
ATCTGCATCATGCAAAAATGGGGTGGAAAAAGAGAAGTCATGTACACAGCCTTCAGAGCA
CTGGGACGAAGTGTGGATTATGTACAGGTTTGTGATTCAGACACTATGCTTGACCCAGCC
TCATCTGTGGAGATGGTAAAAGTTTTAGAAGAAGATCCCATGGTTGGAGGTGTTGGGGGA
GATGTCCAGATTTTAAACAAGTACGATTCCTGGATCTCATTCCTCAGCAGTGTAAGATAT
TGGATGGCTTTTAATATAGAAAGGGCCTGTCAGTCTTATTTTGGGTGTGTTCAGTGCATT
AGTGGACCTCTGGGAATGTACAGAAACTCCTTGTTGCATGAGTTTGTGGAAGATTGGTAC
AATCAAGAATTTATGGGCAACCAATGTAGCTTTGGTGATGACAGGCATCTCACGAACCGG
GTGCTGAGCCTGGGCTATGCAACAAAATACACAGCTCGATCTAAGTGCCTTACTGAAACA
CCTATAGAATATCTCAGATGGCTAAACCAGCAGACCCGTTGGAGCAAGTCCTACTTCCGA
GAATGGCTGTACAATGCAATGTGGTTTCACAAACATCACTTGTGGATGACCTACGAAGCG
ATTATCACTGGATTCTTTCCTTTCTTTCTCATTGCCACAGTAATCCAGCTCTTCTACCGG
GGTAAAATTTGGAACATTCTCCTCTTCTTGTTAACTGTCCAGCTAGTAGGTCTCATAAAA
TCATCTTTTGCCAGCTGCCTTAGAGGAAATATCGTCATGGTCTTCATGTCTCTCTACTCA
GTGTTATACATGTCGAGTTTACTTCCCGCCAAGATGTTTGCAATTGCAACAATAAACAAA
GCTGGGTGGGGCACATCAGGAAGGAAAACCATTGTTGTTAATTTCATAGGACTCATTCCA
GTATCAGTTTGGTTTACAATCCTCCTGGGTGGTGTGATTTTCACCATTTATAAGGAGTCT
AAAAGGCCATTTTCAGAATCCAAACAGACAGTTCTAATTGTTGGAACGTTGCTCTATGCA
TGCTATTGGGTCATGCTTTTGACGCTGTATGTAGTTCTCATCAATAAGTGTGGCAGGCGG
AAGAAGGGACAACAATATGACATGGTGCTTGATGTATGA

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_005328 unedited
CCATTCCCCCGCCCCGCTGCGCATTGGGCGGTAGGCGTGTCCGGTGGGAGGTCTATATAA
GCAGTTTTCATTTAGGTGACACTATAGAATACAAGCTACTTGTTCTTTTTGCAGCGGCCG
CGAATTCGGCACGAGGAAGAGTTGAACCACCTAAGGCGGAGTTCAAACAAAGGCTGAAGC
AGGAAGGTTTGCTGGGGGAAATCAGTGGGGTCCCCTGAGCAGCGTGAAGTCATCAGGCCA
AGGTCGTCTCAAATTCATCTGATCTCTTATTACCTCAATTTTGGAAACTGCCCGCCACCG
ACCCTCCGGGACCACACAGACAGGCTGAGGACGACTTTATGACCAAGAGCTGAACAAGAT
GCATTGTGAGAGGTTTCTATGTATCCTGAGAATAATTGGAACCACACTCTTTGGAGTCTC
TCTCCTCCTTGGAATCACAGCTGCTTATATTGTTGGCTACCAGTTTATCCAAACGGATAA
TTACTATTTCTCTTTTGGACTGTATGGTGCCTTTTTGGCATCACACCTCATCATCCAAAG
CCTGTTTGCCTTTTTGGAGCACCGAAAAATGAAAAAATCCCTAGAAACCCCCATAAAGTT
GAACAAAACAGTTGCCCTTTGCATCGCTGCCTATCAAGAAGAGCCAGACTACTTAAGGAA
ATGTTTGCAATCTGTGAAAAGGCTAACCTACCCTGNGATTAAAGTTGTCATGGTCATAGA
TGGGAACTCAGCAGATGACCTTTACATGATGGACATCTTCAGTGAAGTCATGGGCAGAGA
CTAATCAGCCACTTATATCTGGAAGACAACTTCCCGAAAAGGGTCCCTGTGAGACAGATG
AGTCACATACAGCAAGCTCGCTACACGTAACGCTAATTGGTCTTGTCCTACACCAGTATC
TGCATCATGCTAAAATGTNNGTGGGACAAGAGCAGTCT

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_005328 unedited
CCGGAAATACTATTACGCGGCCGCATTCTANGATCGAGTTTTTTTTTTTTTTTTTTCTTA
TCAAAAATATTTTATTTACAAAAAATAATTATACTATACATCCTATACTGGAAATACATT
GAATAATTGCTAAAATAAATACAGGCAATTAATTCAACTTTTTATAAGAATGAGAGAATT
TGACATTTGAATGTTATCAAAGCTTAACTTAGAACATAATTAGTTAAAAAGGCAAACTCA
AGTTTTCATCTCATTTATTGGCATGGTGTGTTTTGTTTTCCACAAGCTCTCCAATCAGTG
AGAGTCTTGAGTCTCAGATGTACCTTTTTGTACTCTGAAGGTAGGATGTGCAGCTTTTTC
TTAGGCAGGATAGATGTAACATAGATGACTGCCTAAAAAAGAGGCAGAAAGGCAGGAAGC
CCATTTTTTTTTTAACACTTCTCCATGTGTCTCTGCCTCACCATAATGCTGTTTATTCAA
TTATTCATATATTCCGATTGTGTTTTCAACACAGGTTTACACAGCACCAGCTACAAGGCA
AGGTCAATCGTGTAAAAAATAAAACTGGATAATGGAGGCCTTGCAGTAACTAAATTAGCC
AAGTTCAGAGTATGTGGTTCAACAATTTTTATATGTGCCCATCATTGATATACTTATTAA
ACCTTGATGTCACTTCTACTGGGGAGACATTTTTATTCAGGTCCACAACAGGAAATAAGA
AGTGATGATCTGTGTAATTCACAAAAACAAATTCCTCCTTTGTAAAGTAAAAGAGGAAAG
AAACTTGGTGGAGTCTTCTTGCCCAATTTCAAATTATATGGTTTTAAAAATTATCCCACT
TCACCCGGGTAGACCTTTTTACCTCCCTGGTAAAGGGAACG

Restriction Sites: NotI-NotI

ACCN: NM_005328

Insert Size: 1659 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).

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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:
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: NM_005328.1, NP_005319.1

RefSeq Size: 3003 bp

RefSeq ORF: 1659 bp

Locus ID: 3037

UniProt ID: Q92819

Cytogenetics: 8q24.13

Domains:	Glycos_transf_2
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. 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. [provided by RefSeq, Jul 2008]