

Product datasheet for SC328840

OriGene Technologies, Inc.

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Hyaluronidase PH20 (SPAM1) (NM_001174044) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: Hyaluronidase PH20 (SPAM1) (NM_001174044) Human Untagged Clone

Tag: Tag Free
Symbol: SPAM1

Synonyms: HEL-S-96n; HYA1; HYAL1; HYAL3; HYAL5; PH-20; PH20; SPAG15

Mammalian Cell Neomycin

Selection:

Vector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)



Fully Sequenced ORF:

>SC328840 representing NM_001174044.

Blue=Insert sequence Red=Cloning site Green=Tag(s)

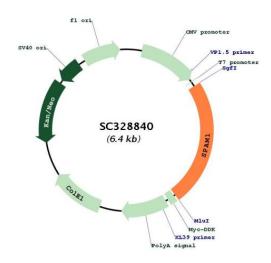
GCTCGTTTAGTGAACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGGATCGCC

ATGGGAGTGCTAAAATTCAAGCACATCTTTTTCAGAAGCTTTGTTAAATCAAGTGGAGTATCCCAGATA GTTTTCACCTTCCTGATTCCATGTTGCTTGACTCTGAATTTCAGAGCACCTCCTGTTATTCCAAAT GTGCCTTTCCTCTGGGCCTGGAATGCCCCAAGTGAATTTTGTCTTGGAAAATTTGATGAGCCACTAGAT ATGAGCCTCTTCTCTTTCATAGGAAGCCCCCGAATAAACGCCACCGGGCAAGGTGTTACAATATTTTAT GTTGATAGACTTGGCTACTATCCTTACATAGATTCAATCACAGGAGTAACTGTGAATGGAGGAATCCCC AATTTGGGAATGGCTGTTATTGACTGGGAAGAATGGAGACCCACTTGGGCAAGAAACTGGAAACCTAAA GATGTTTACAAGAATAGGTCTATTGAATTGGTTCAGCAACAAAATGTACAACTTAGTCTCACAGAGGCC ACTGAGAAAGCAAAACAAGAATTTGAAAAGGCAGGGAAGGATTTCCTGGTAGAGACTATAAAATTGGGA AAATTACTTCGGCCAAATCACTTGTGGGGTTATTATCTTTTTCCGGATTGTTACAACCATCACTATAAG AAACCCGGTTACAATGGAAGTTGCTTCAATGTAGAAATAAAAAGAAATGATGATCTCAGCTGGTTGTGG AATGAAAGCACTGCTCTTTACCCATCCATTTATTTGAACACTCAGCAGTCTCCTGTAGCTGCTACACTC TATGTGCGCAATCGAGTTCGGGAAGCCATCAGAGTTTCCAAAATACCTGATGCAAAAAGTCCACTTCCG GTTTTTGCATATACCCGCATAGTTTTTACTGATCAAGTTTTGAAATTCCTTTCTCAAGATGAACTTGTG TATACATTTGGCGAAACTGTTGCTCTGGGTGCTTCTGGAATTGTAATATGGGGAACCCTCAGTATAATG CGAAGTATGAAATCTTGCTTGCTCCTAGACAATTACATGGAGACTATACTGAATCCTTACATAATCAAC GTCACACTAGCAGCCAAAATGTGTAGCCAAGTGCTTTGCCAGGAGCAAGGAGTGTGTATAAGGAAAAAC TGGAATTCAAGTGACTATCTTCACCTCAACCCAGATAATTTTGCTATTCAACTTGAGAAAGGTGGAAAG TTCACAGTACGTGGAAAACCGACACTTGAAGACCTGGAGCAATTTTCTGAAAAATTTTATTGCAGCTGT TATAGCACCTTGAGTTGTAAGGAGAAAGCTGATGTAAAAGACACTGATGCTGTTGATGTGTATTGCT GATGGTGTCTGTATAGATGCTTTTCTAAAACCTCCCATGGAGACAGAAGAACCTCAAATTTTCTACAAT GCTTCACCCTCCACACTATCTGCCACAATGTTCATTGTTAGTATTTTGTTTCTTATCATTTCTTCTGTA **GCGAGTTTGTAA**

Restriction Sites:

Sgfl-Mlul

Plasmid Map:



ACCN: NM_001174044

Hyaluronidase PH20 (SPAM1) (NM_001174044) Human Untagged Clone - SC328840

Insert Size: 1530 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: <u>NM 001174044.1</u>

RefSeq Size: 2241 bp
RefSeq ORF: 1530 bp
Locus ID: 6677

 UniProt ID:
 P38567

 Cytogenetics:
 7q31.32

Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Glycosaminoglycan degradation, Metabolic pathways

MW: 57.8 kDa



Gene Summary:

Hyaluronidase degrades hyaluronic acid, a major structural proteoglycan found in extracellular matrices and basement membranes. Six members of the hyaluronidase family are clustered into two tightly linked groups on chromosome 3p21.3 and 7q31.3. This gene was previously referred to as HYAL1 and HYA1 and has since been assigned the official symbol SPAM1; another family member on chromosome 3p21.3 has been assigned HYAL1. This gene encodes a GPI-anchored enzyme located on the human sperm surface and inner acrosomal membrane. This multifunctional protein is a hyaluronidase that enables sperm to penetrate through the hyaluronic acid-rich cumulus cell layer surrounding the oocyte, a receptor that plays a role in hyaluronic acid induced cell signaling, and a receptor that is involved in sperm-zona pellucida adhesion. Abnormal expression of this gene in tumors has implicated this protein in degradation of basement membranes leading to tumor invasion and metastasis. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Mar 2010]

Transcript Variant: This variant (3) differs in the 5' UTR and uses an alternate splice pattern in the 3' coding region and 3' UTR, compared to variant 1, resulting in a shorter and distinct C-terminus (isoform 2). Variants 2-5 all encode the same isoform.