

Product datasheet for **SC122646**

Hyaluronidase PH20 (SPAM1) (NM_003117) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Hyaluronidase PH20 (SPAM1) (NM_003117) Human Untagged Clone
Tag:	Tag Free
Symbol:	Hyaluronidase PH20
Synonyms:	HEL-S-96n; HYA1; HYAL1; HYAL3; HYAL5; PH-20; PH20; SPAG15
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF:

>OriGene sequence for NM_003117 edited
 AGCGGAGGTGGTTAGCAGCACCTCATAAGGTCCTTCTAGCAAGGGATGCTAATGACTAG
 CCAATGCTCTAGGAAGACATTGAGACCAGCCAACCTTCTGCGTTGATAACTACTGAAGAG
 ACATTGGGTGGCTGGATTTTGAAGCAGACTTCTGGTTATAGGTGATGCAACTTGAAAA
 CAATCTGAAACATGAAACAAGAATAATAATATTTAAATGTAACCTAATCATTATACCTC
 TTTATCCATCAAAGTGAATTCATTCCATTCCCTTTCATCTGTGCTCATACTTTGCATCAG
 ATATTGGGTAAACCAAGTGTGTAGGAAGAAATAAATGTTTTTCATAGTCATTACTCTTTA
 CAATGGGAGTGCTAAAATTCAAGCACATCTTTTTCAGAAGCTTTGTTAAATCAAGTGGAG
 TATCCCAGATAGTTTTACCTTCTCTGATTCCATGTTGCTTACTCTGAATTTTCAGAG
 CACCTCTGTTATTCCAATGTGCTTTTCTCTGGGCCTGGAATGCCCAAGTGAATTTT
 GTCTTGGAAAAATTTGATGAGCCACTAGATATGAGCCTTCTCTTTTCATAGGAAGCCCC
 GAATAAACGCCACCGGGCAAGGTGTTACAATATTTTATGTTGATAGACTTGGCTACTATC
 CTTACATAGATTCAATCACAGGAGTAACTGTGAATGGAGGAATCCCCAGAAGATTTCT
 TACAAGACCATCTGGACAAGCTAAGAAAGACATTACATTTTATATGCCAGTAGACAATT
 TGGGAATGGCTGTTATTGACTGGGAAGAATGGAGACCCACTTGGGCAAGAACTGGAAC
 CTAAGATGTTTACAAGAATAGGTCTATTGAATTGGTTCAGCAACAAAATGTACAACCTA
 GTCTCACAGAGGCCACTGAGAAAGCAAAACAAGAATTTGAAAAAGCAGGGGAGGATTTCC
 TGGTAGAGACTATAAAATTTGGGAAAATTTACTTCGGCCAAATCACTTGTGGGGTTATTATC
 TTTTTCCGGATTGTTACAACCATCACTATAAGAAACCCGGTTACAATGGAAGTTGCTTCA
 ATGTAGAAATAAAAAGAAATGATGATCTCAGCTGGTTGTGGAATGAAAGCACTGCTCTTT
 ACCCATCCATTTATTTGAACACTCAGCAGTCTCCTGTAGCTGCTACACTCTATGTGCGCA
 ATCGAGTTCGGGAAGCCATCAGAGTTTCCAAAATACCTGATGCAAAAAGTCCACTTCCGG
 TTTTTGCATATACCCGCATAGTTTTTACTGATCAAGTTTTGAAATTCCTTTCTCAAGATG
 AACTTGGTATACATTTTGGCGAAACTGTTGCTCTGGGTGCTTCTGGAATTGTAATATGGG
 GAACCCTCAGTATAATGCGAAGTATGAAATCTTGCTTGCTCTAGACAATTACATGGAGA
 CTATACTGAATCCTTACATAATCAACGTCACACTAGCAGCCAAAATGTGTAGCCAAGTGC
 TTTGCCAGGAGCAAGGAGTGTGTATAAGGAAAAACTGGAATTCAGTGACTATCTTACC
 TCAACCCAGATAATTTTGCTATTCAACTTGAGAAAGGTGGAAAGTTCACAGTACGTGGAA
 AACCGACACTTGAAGACCTGGAGCAATTTTCTGAAAAATTTTATTGCAGCTGTTATAGCA
 CCTTGAGTTGTAAGGAGAAAGCTGATGTAAAAGACACTGATGCTGTTGATGTGTATTG
 CTGATGGTGTCTGTATAGATGCTTTTCTAAAACCTCCCATGGAGACAGAAGAACCCTCAA
 TTTTCTACAATGCTTACCCTCCACACTATCTGCCACAATGTTCAATTTGGAGGCTGGAAG
 TCTGGGATCAAGGTATTAGCAGAATTGGTTTTCTTCTGAGAGTCATGAGGGAAAAATGTGT
 TTCAGGCCTCTTCCCTTGGCTTACAGGAAATGAAAAACCATGACTATCATCACCAACAT
 CCTTGGGTATTAAGTGCAGTCACTCTCCTAGATGCTGTGGGGAGAAGGCAAGTTACAAAG
 ATAGACCTTCCCTCAAGATAATCAGATTTTTCATGGTATTATCCTTAACCTTTTTGACATC
 ATGGAGGCTTTGGGAATCTGATGAAGCCTATCAATTTTCTCCAGAAGATATTTATATAA
 GATTATAAGAAAAATTATGTACACAGCTTATTTTATTGCATTGGATCAAAATGCCATTTA
 TAAAGAATTATGCCTTTTCCATCAATTTTAGCATGGAAAAATAATTTTCAGGCAATATGCT
 TAAAAATTTGGGGGAAAGCAAAAGAAATCCATATCGTGAATAAAAAATAAATTTTGGTTT
 TGCTCAAAAAAAAAAAAAAAAAA

5' Read Nucleotide Sequence:	>OriGene 5' read for NM_003117 unedited TCTGATATTTGTAATACGACTTCTTATAGGGCGGCCGCATAAECTTCGTATAGCATACATT ATACTAATTTATGGATCAGGCCAAATCGGCCGAGCTCGAATTCGTGAGAGCGGAGGTGG TTAGCAGCACCTCATAAGGTCCTTCCTAGCAAGGGATGCTAATGACTAGCCAATGCCTA GGAAGACATTGAGACCAGCCAACCTCTTGCCTTGATAACTACTGAAGAGACATTGGGTGG CTGGATTTTAAAAGCAGACTTCTGGTTATAGGTGATGCAACTTGAAAAACAATCCTGAAA CATGAAACAAGAATAATAATATTTAAATGTAACCTAATCATTATACCTCTTTATCCATCA AAGTGAATTCATTCCATTCCCTTTCATCTGTGCTCATACTTTGCATCAGATATTGGGTAA ACCAAAGTGTGTAGGAAGAAATAAATGTTTTTCATAGTCATTACTCTTTACAATGGGAGTG CTAAAATTCAAGCACATCTTTTTCAGAAGCTTTGTAAATCAAGTGGAGTATCCCAGATA GTTTTACCTTCTTCTGATTCCATGTTGCTTGACTCTGAATTTTCAGAGCACCTCCTGTT ATTCCAATGTGCCTTTCCTCTGGGCCTGGAATGCCCAAGTGAATTNTGTCTTGAAAA TTTGATGAGCCACTAGATATGAGCCTCTTCTTTTCATAGGAAGCCCCGAATAAACGCC ACCGGGCAAGGGTGTACAATATTTTATGTTGATAGACTTGGCTACTATCCTTACATAGA TTCAATCACAGGAGTAAGTGTGAATGGAGGAATCCNCCAGAAGATTTCTTNACAGACCA TCTGGACAAGCTAAGAAAGACATACATTTTATATGCCAGTAGACATTTTGAATGGGCTG TATGACTGGGAAGATGGAGACCCACTTGGGCAGAACTGGAAACTAAAGAGT
Restriction Sites:	Please inquire
ACCN:	NM_003117
Insert Size:	2400 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:	<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:	NM_003117.3 , NP_003108.2
RefSeq Size:	2395 bp
RefSeq ORF:	1536 bp
Locus ID:	6677
UniProt ID:	P38567

Cytogenetics:	7q31.32
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Glycosaminoglycan degradation, Metabolic pathways
Gene Summary:	<p>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]</p> <p>Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1).</p>