

Product datasheet for **RC205378**

Hyaluronidase PH20 (SPAM1) (NM_003117) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Hyaluronidase PH20 (SPAM1) (NM_003117) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Hyaluronidase PH20
Synonyms:	HEL-S-96n; HYA1; HYAL1; HYAL3; HYAL5; PH-20; PH20; SPAG15
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC205378 representing NM_003117
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGGAGTGCTAAAATCAAGCACATCTTTTTCAGAAGCTTTGTTAAATCAAGTGGAGTATCCAGATAG
 TTTTCACCTTCTCTGATTCCATGTTGCTTGACTCTGAATTTACAGACACCTCCTGTTATTCCAATGT
 GCCTTCTCTGCGCCTGGAATGCCCAAGTGAATTTGTCTTGAAAAATTTGATGAGCCACTAGATATG
 AGCCTCTTCTTTTCATAGGAAGCCCCGAATAAACGCCACCGGCAAGGTGTTACAATATTTTATGTTG
 ATAGACTTGGCTACTATCCTTACATAGATTCAATCACAGGAGTAACTGTGAATGGAGGAATCCCCAGAA
 GATTTCTTACAAGACCCTGGACAAAGCTAAGAAAGACATTACATTTTATATGCCAGTAGACAATTTG
 GGAATGGCTGTTATTGACTGGGAAGAATGGAGACCCACTTGGGCAAGAACTGGAAACCTAAAGATGTTT
 ACAAGAATAGGTCTATTGAATTGGTTCAGCAACAAAATGTACAACCTAGTCTCACAGAGGCCACTGAGAA
 AGCAAAAACAAGAAATTTGAAAAAGCAGGGAAGGATTTCTGGTAGAGACTATAAAATTTGGGAAAATTA
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 ACAATGGAAGTTGCTTCAATGTAGAAATAAAAAGAAATGATGATCTCAGCTGGTTGTGGAATGAAAGCAC
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 AAATGTGTAGCCAAGTGCTTTGCCAGGAGCAAGGAGTGTGTATAAGGAAAACTGGAATTCAGTGACTA
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 CCGACACTTGAAGACCTGGAGCAATTTTCTGAAAAATTTTATTGCAGCTGTTATAGCACCTTGAGTTGTA
 AGGAGAAAAGCTGATGTAAGACACTGATGCTGTTGATGTGTATTGCTGATGGTGTCTGTATAGATGC
 TTTTCTAAAACCTCCCATGGAGACAGAAGAACCTCAAATTTTCTACAATGCTTACCCTCCACACTATCT
 GCCACAATGTTTATTGGAGGCTGGAAGTCTGGGATCAAGGTATTAGCAGAATTGGTTTTCTTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC205378 representing NM_003117
 Red=Cloning site Green=Tags(s)

MGVLKFKHIFRFSVFKSSGVSQIVFTFLLIPCCLTNFRAPPVIPNVPFLWAWNAPSEFCLGKFDPEPLDM
 SLFSFIGSPRINATGQGVTFIFYVDRLGYYPYIDSITGVTVNGGIPQKISLQDHLDAKAKDITFYMPVDNL
 GMAVIDWEEWRPTWARNWPKDVKYKNSIELVQQQNVQLSLTEATEKAKQEFKAGKDFLVETIKLGLLL
 RPNHLWGYYLFPDCYNHYYKPGYNGSCFNVEIKRNDLWLNWNESTALYPSIYLNTQQSPVAATLYVRN
 RVREAIRVSKIPDAKSPLPVFAYTRIVFTDQVLKFLSQDELVYTFGETVALGASGIVIWGTLSIMRSMKS
 CLLLDNYMETILNPYIINVTLAAKMCSQVLCQEQGVCIKRNWNSDYHLNPDNFAIQLEKGGKFTVRGK
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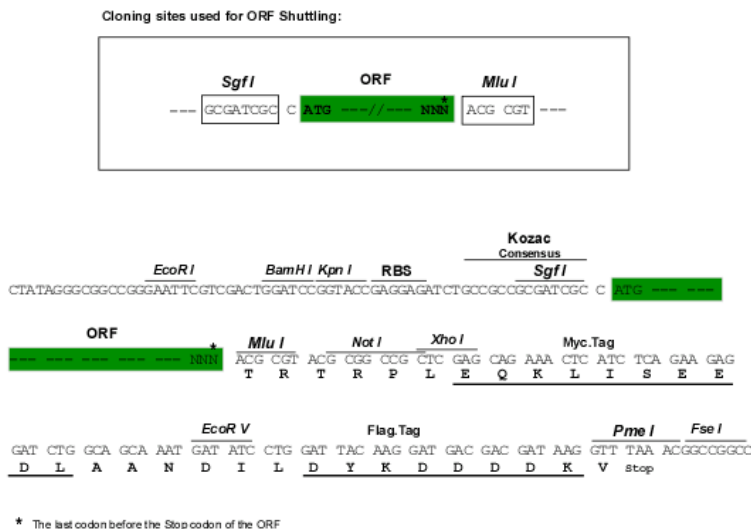
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mg2588_e05.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_003117

ORF Size: 1533 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_003117.2](#)

RefSeq Size: 2395 bp

RefSeq ORF: 1536 bp

Locus ID: 6677

UniProt ID: [P38567](#)

Cytogenetics: 7q31.32

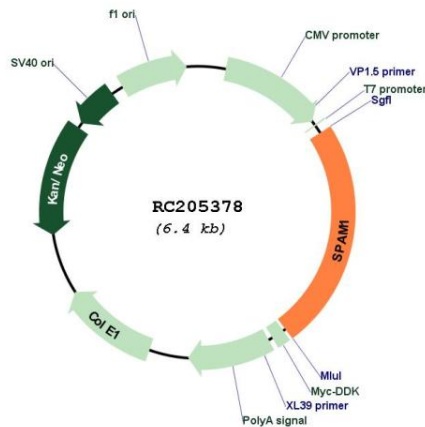
Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Glycosaminoglycan degradation, Metabolic pathways

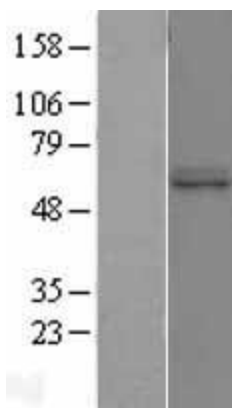
MW: 58.2 kDa

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]

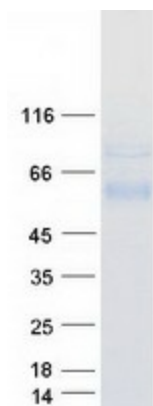
Product images:



Circular map for RC205378



Western blot validation of overexpression lysate (Cat# [LY401088]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205378 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SPAM1 protein (Cat# [TP305378]). The protein was produced from HEK293T cells transfected with SPAM1 cDNA clone (Cat# RC205378) using MegaTran 2.0 (Cat# [TT210002]).