Active Recombinant Human HYAL1 protein, His-tagged

Cat. No. HYAL1-13H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human HYAL1(Met1-Trp435) fused with His tag at C-terminal was expressed in CHO.
Species	Human
Source	CHO
ProteinLength	1-435 a.a.
Description	Human hyaluronidases (HYALs) are a group of five endo- beta -N-acetyl-hexosaminidases that include HYAL1, HYAL2, HYAL3, HYAL4, and SPAM1 (PH20). While HYAL1, HYAL2 and SPAM1 are endo- beta -N-acetyl-glucosaminidase that are mainly active on hyaluronan with little activity on chondroitin sulfate, HYAL4 is mainly active on chondroitin sulfate (type C and D in particular). Hyaluronan and chondroitin sulfate are abundant extracellular matrix components that have numerous biological function. The backbone of chondroitin sulfate composed of repeating units of -4GlcA beta 1-3GalNAc beta 1- most closely resembles to that of hyaluronan composed of repeating units of -4GlcA beta 1-3GlcNAc beta 1-, which may partially explain the overlapping substrate specificity of most hyaluronidases. HYAL1 is a lysosomal hyaluronidase with optimal activity around pH 4.0. It is highly expressed in the liver, kidney and heart, and is the predominant hyaluronidase found in plasma. Defects in HYAL1 are associated with mucopolysaccharidosis type IX, or hyaluronidase deficiency. Surprisingly, HYAL1 has been reported both as a tumor promoter and

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	suppressor.The enzymatic activity of recombinant human HYAL1 was measured using 35S-labeled hyaluronan as substrate.
Predicted N Terminal	Phe22
Form	Supplied as a 0.2 μm filtered solution in Tris, NaCl and Glycerol.
Bio-activity	Measured by its ability to hydrolyze S-35 labeled hyaluronan. <20 ng of rhHYAL1 is required for the 50% hydrolysis of 10 μg hyaluronan.
Molecular Mass	Predicted Molecular Mass: 47 kDa; SDS-PAGE: 50-60 kDa, reducing conditions
Endotoxin	<1.0 EU per 1 μg of the protein by the LAL method.
Purity	>90%, by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie® Blue stain at 5 μg per lane
Storage	Avoid repeated freeze-thaw cycles. 6 months from date of receipt, -20 to -70 centigrade as supplied. 3 months, -20 to -70 centigrade under sterile conditions after opening.

GENE INFORMATION

Gene Name	HYAL1 hyaluronoglucosaminidase 1 [Homo sapiens]
Official Symbol	HYAL1
Synonyms	HYAL1; hyaluronoglucosaminidase 1; hyaluronidase-1; FUS2; HYAL 1; LUCA1; NAT6; luCa-1; hyaluronidase 1; plasma hyaluronidase; tumor suppressor LUCA-1; lung carcinoma protein 1; hyaluronoglucosaminidase-1; HYAL-1; MGC45987;

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Gene ID	3373
mRNA Refseq	NM_007312
Protein Refseq	NP_009296
MIM	607071
UniProt ID	Q12794

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