



HYAL4 (H-68): sc-99018

BACKGROUND

Hyaluronidases (HAases or HYALs) are a family of lysosomal enzymes that are crucial for the spread of bacterial infections and of toxins present in a variety of venoms. HYALs may also be involved in the progression of cancer. In humans, six HYAL proteins have been identified. HYAL proteins use hydrolysis to degrade hyaluronic acid (HA), which is present in body fluids, tissues and the extracellular matrix of vertebrate tissues. HA keeps tissues hydrated, maintains osmotic balance and promotes cell proliferation, differentiation and metastasis. HA is also an important structural component of cartilage and acts as a lubricant in joints. HYAL4 is differentially expressed in placenta and skeletal muscle and contains an N-glycosylation site with tripeptide patterns. HYAL4 may form a complex with HYALP1, HYAL5 and Ph-20.

REFERENCES

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3. Csoka, A.B., et al. 2001. The six hyaluronidase-like genes in the human and mouse genomes. *Matrix Biol.* 20: 499-508.
4. Nicoll, S.B., et al. 2002. Hyaluronidases and CD44 undergo differential modulation during chondrogenesis. *Biochem. Biophys. Res. Commun.* 292: 819-825.
5. Kim, E., et al. 2005. Identification of a hyaluronidase, HYAL5, involved in penetration of mouse sperm through cumulus mass. *Proc. Nat. Acad. Sci. USA* 102: 18028-18033.
6. Astériou, T., et al. 2006. Inhibition of hyaluronan hydrolysis concentration and low ionic strength. *Matrix Biol.* 25: 166-174.
7. Belem-Gonçalves, S., et al. 2006. Interfacial behaviour of bovine testis hyaluronidase. *Biochemical J.* 398: 569-576.
8. Gao, F., et al. 2006. Hypoxia-induced alterations in hyaluronan and hyaluronidase. *Adv. Exp. Med. Biol.* 566: 249-256.
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CHROMOSOMAL LOCATION

Genetic locus: HYAL4 (human) mapping to 7q31.32.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

SOURCE

HYAL4 (H-68) is a rabbit polyclonal antibody raised against amino acids 403-470 mapping near the C-terminus of HYAL4 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

HYAL4 (H-68) is recommended for detection of HYAL4 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for HYAL4 siRNA (h): sc-60828, HYAL4 shRNA Plasmid (h): sc-60828-SH and HYAL4 shRNA (h) Lentiviral Particles: sc-60828-V.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

For research use only, not for use in diagnostic procedures.