

# HYAL1 (G-12): sc-99448

## 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. HYAL1 is a 435 amino acid hyaluronidase that is expressed in multiple tissues, specifically in the serum, and is not expressed in brain. HYAL1 degrades HA into fragments that stimulate angiogenesis. Expression of HYAL1 in various cancer cells may have a role in the regulation of tumor growth and progression.

## CHROMOSOMAL LOCATION

Genetic locus: HYAL1 (human) mapping to 3p21.31; Hyal1 (mouse) mapping to 9 F1.

## SOURCE

HYAL1 (G-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HYAL1 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.

Blocking peptide available for competition studies, sc-99448 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

HYAL1 (G-12) is recommended for detection of HYAL1 of mouse and 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); non cross-reactive with HYAL1-3, HYAL1-5 or HYAL1-7.

HYAL1 (G-12) is also recommended for detection of HYAL1 in additional species, including equine.

Suitable for use as control antibody for HYAL1 siRNA (h): sc-78054, HYAL1 siRNA (m): sc-60823, HYAL1 shRNA Plasmid (h): sc-78054-SH, HYAL1 shRNA Plasmid (m): sc-60823-SH, HYAL1 shRNA (h) Lentiviral Particles: sc-78054-V and HYAL1 shRNA (m) Lentiviral Particles: sc-60823-V.

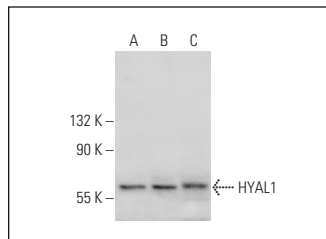
Molecular Weight of HYAL1: 60 kDa.

Positive Controls: PANC-1 whole cell lysate: sc-364380, HEK293 whole cell lysate: sc-45136 or COLO 320DM cell lysate: sc-2226.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



HYAL1 (G-12): sc-99448. Western blot analysis of HYAL1 expression in COLO 320DM (A), PANC-1 (B) and HEK293 (C) whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **HYAL1 (1D10): sc-101340** or **HYAL1 (F-10): sc-514634**, our highly recommended monoclonal alternatives to HYAL1 (G-12).