

HAS2 (Y-14): sc-34068

BACKGROUND

HAS1, HAS2 and HAS3 are HA Synthase proteins that synthesize HA (hyaluronan or hyaluronic acid). The extracellular matrix in most vertebrates express HA, which is a high molecular weight linear polysaccharide composed of alternating glucuronic acid and N-acetylglucosamine residues linked by β -1,3 and β -1,4 glycosidic bonds. The three HAS genes show distinct patterns of expression during development and their protein products play significantly different roles in the formation of the HA matrix. Both HAS1 and HAS2 synthesize high molecular-weight HA, whereas HAS3 produces lower molecular weight HA. The expression of the three HAS isoforms is more prominent in growing cells than in resting cells and is differentially regulated by various stimuli suggesting distinct functional roles of the three proteins. HAS2 mRNA shows predominant expression in chondrocytes and cartilage. The human HAS2 gene maps to chromosome 8q24.13.

CHROMOSOMAL LOCATION

Genetic locus: HAS2 (human) mapping to 8q24.13; Has2 (mouse) mapping to 15 D1.

SOURCE

HAS2 (Y-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of HAS2 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-34068 P, (100 μ g 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

HAS2 (Y-14) is recommended for detection of HAS2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

HAS2 (Y-14) is also recommended for detection of HAS2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for HAS2 siRNA (h): sc-45328, HAS2 siRNA (m): sc-45329, HAS2 shRNA Plasmid (h): sc-45328-SH, HAS2 shRNA Plasmid (m): sc-45329-SH, HAS2 shRNA (h) Lentiviral Particles: sc-45328-V and HAS2 shRNA (m) Lentiviral Particles: sc-45329-V.

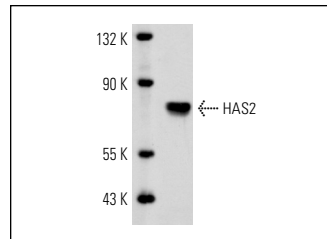
Molecular Weight of HAS2: 63 kDa.

Positive Controls: mouse embryo extract: sc-364239.

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



HAS2 (Y-14): sc-34068. Western blot analysis of HAS2 expression in mouse embryo tissue extract.

SELECT PRODUCT CITATIONS

- Berdiaki, A., et al. 2009. bFGF induces changes in hyaluronan synthase and hyaluronidase isoform expression and modulates the migration capacity of fibrosarcoma cells. *Biochim. Biophys. Acta* 1790: 1258-1265.
- Berdiaki, A., et al. 2010. Parathyroid hormone (PTH) peptides through the regulation of hyaluronan metabolism affect osteosarcoma cell migration. *IUBMB Life* 62: 377-386.
- Cheng, G., et al. 2013. Correlation of hyaluronan deposition with infiltration of eosinophils and lymphocytes in a cockroach-induced murine model of asthma. *Glycobiology* 23: 43-58.
- Galloway, J.L., et al. 2013. The control and importance of hyaluronan synthase expression in palatogenesis. *Front. Physiol.* 4: 10.

RESEARCH USE

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

PROTOCOLS

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


 MONOS
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Try **HAS2 (A-7): sc-514737** or **HAS2 (C-5): sc-365263**, our highly recommended monoclonal alternatives to HAS2 (Y-14). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **HAS2 (A-7): sc-514737**.