

Chondroitinase (F-17): sc-68446

BACKGROUND

Chondroitinase, also known as GALNS (galactosamine (N-acetyl)-6-sulfate sulfatase), GAS or MPS4A, is a 522 amino acid protein that localizes to the lysosome and functions as an exohydrolase that is essential for the degradation of glycosaminoglycans, keratan sulfate and chondroitin 6-sulfate. Using calcium as a cofactor, Chondroitinase, which exists as a disulfide linked oligomer, catalyzes the hydrolysis of the 6-sulfate group on target substrates. Defects in the gene encoding Chondroitinase are the cause of mucopolysaccharidosis type 4A (MPS4A), an autosomal recessive lysosomal storage disease that is characterized by the intracellular accumulation of keratan sulfate and chondroitin-6-sulfate and is associated with dental anomalies, short stature and, in some cases, death in the second or third decade of life.

REFERENCES

1. Bielicki, J., et al. 1991. Human liver N-acetylgalactosamine 6-sulphatase. Purification and characterization. *Biochem. J.* 279: 515-520.
2. Masue, M., et al. 1991. N-acetylgalactosamine-6-sulfate sulfatase in human placenta: purification and characteristics. *J. Biochem.* 110: 965-970.
3. Fukuda, S., et al. 1992. Mucopolysaccharidosis type IVA. N-acetylgalactosamine-6-sulfate sulfatase exonic point mutations in classical Morquio and mild cases. *J. Clin. Invest.* 90: 1049-1053.
4. Baker, E., et al. 1993. The morquio A syndrome (mucopolysaccharidosis IVA) gene maps to 16q24.3. *Am. J. Hum. Genet.* 52: 96-98.
5. Bielicki, J., et al. 1995. Expression, purification and characterization of recombinant human N-acetylgalactosamine-6-sulphatase. *Biochem. J.* 311: 333-339.

CHROMOSOMAL LOCATION

Genetic locus: GALNS (human) mapping to 16q24.3; Galns (mouse) mapping to 8 E1.

SOURCE

Chondroitinase (F-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Chondroitinase 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-68446 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.

RESEARCH USE

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

APPLICATIONS

Chondroitinase (F-17) is recommended for detection of Chondroitinase of mouse, rat 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).

Chondroitinase (F-17) is also recommended for detection of Chondroitinase in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Chondroitinase siRNA (h): sc-72902, Chondroitinase siRNA (m): sc-72903, Chondroitinase shRNA Plasmid (h): sc-72902-SH, Chondroitinase shRNA Plasmid (m): sc-72903-SH, Chondroitinase shRNA (h) Lentiviral Particles: sc-72902-V and Chondroitinase shRNA (m) Lentiviral Particles: sc-72903-V.

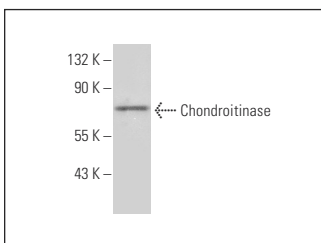
Molecular Weight of Chondroitinase: 58 kDa.

Positive Controls: mouse kidney extract: sc-2255.

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



Chondroitinase (F-17): sc-68446. Western blot analysis of Chondroitinase expression in mouse kidney tissue extract.

PROTOCOLS

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