SANTA CRUZ BIOTECHNOLOGY, INC.

Arylsulfatase B (L-13): sc-107155

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The Power to Question

BACKGROUND

Arylsulfatase B, also known as ARSB, ASB, MPS6 or G4S, is a 533 amino acid lysosomal protein that belongs to the sulfatase family. Existing as both a monomer and a homodimer, Arylsulfatase B uses calcium as a cofactor to hydrolyze C4-sulfate groups of N-Acetyl-D-galactosamine, dermatan sulfate and chondriotin sulfate, thereby playing a role in lysosomal degradation. Defects in the gene encoding Arylsulfatase B are the cause of mucopolysaccharidosis type 6 (MPS6) and multiple sulfatase deficiency (MSD), the first of which is a lysosomal storage disease that is characterized by short stature, stiff joints, skeletal malformations, corneal clouding, hepatosplenomegaly and cardiac abnormalities. In contrast, MSD is characterized by a decreased activity of all known sulfatases and is usually associated with mucopolysaccharidosis, chondrodysplasia punctata, hydrocephalus, ichthyosis and neurologic deterioration. Multiple isoforms of Arylsulfatase B exist due to alternative splicing events.

REFERENCES

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2. Modaressi, S., Rupp, K., von Figura, K. and Peters, C. 1993. Structure of the human Arylsulfatase B gene. Biol. Chem. Hoppe-Seyler 374: 327-335.
3. Voskoboeva, E., Isbrandt, D., von Figura, K., Krasnopolskaya, X. and Peters, C. 1994. Four novel mutant alleles of the Arylsulfatase B gene in two patients with intermediate form of mucopolysaccharidosis VI (Maroteaux-Lamy syndrome). Hum. Genet. 93: 259-264.
4. Bond, C.S., Clements, P.R., Ashby, S.J., Collyer, C.A., Harrop, S.J., Hop-wood, J.J. and Guss, J.M. 1997. Structure of a human lysosomal sulfatase. Structure 5: 277-289.
5. Litjens, T. and Hopwood, J.J. 2001. Mucopolysaccharidosis type VI: structural and clinical implications of mutations in N-acetylgalactosamine-4-sulfatase. Hum. Mutat. 18: 282-295.
6. Bhattacharyya, S., Look, D. and Tobacman, J.K. 2007. Increased Arylsulfatase B activity in cystic fibrosis cells following correction of CFTR. Clin. Chim. Acta 380: 122-127.

CHROMOSOMAL LOCATION

Genetic locus: Arsb (mouse) mapping to 13 C3.

SOURCE

Arylsulfatase B (L-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Arylsulfatase B of mouse 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-107155 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Arylsulfatase B (L-13) is recommended for detection of Arylsulfatase B of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 other Arylsulfatase family members.

Suitable for use as control antibody for Arylsulfatase B siRNA (m): sc-141282, Arylsulfatase B shRNA Plasmid (m): sc-141282-SH and Arylsulfatase B shRNA (m) Lentiviral Particles: sc-141282-V.

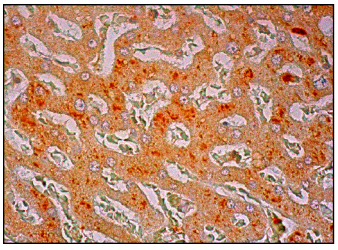
Molecular Weight of mature Arylsulfatase B: 47 kDa.

Molecular Weight of Arylsulfatase B precursor: 64 kDa.

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) 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



Arylsulfatase B (L-13): sc-107155. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes.

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.

PROTOCOLS

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