SANTA CRUZ BIOTECHNOLOGY, INC.

mucolipin 1 (L-15): sc-26266

BACKGROUND

The gene encoding human mucolipin 1 maps to chromosome 19p13.2. Mutations in this gene cause a rare, autosomal recessive lysosomal storage disease known as mucolipidosis type IV (MLIV). Clinical characteristics of MLIV include psychomotor retardation, retinal degeneration, corneal opacities and strabismus. Mucolipin 1 localizes to the plasma membrane and contains six transmembrane domains. The carboxy-terminus of mucolipin 1 shares sequence homology with polycystin-2 and the transient receptor potential cation channel family. The concentration of intracellular Ca^{2+} regulates the permeability of mucolipin 1 to Ca^{2+}, Na^{+} and K^{+}. The influence of Ca^{2+} on mucolipin 1 represents a possible role for mucolipin 1 in lysosomal exocytosis and the trafficking of late endosomes and lysosmes.

REFERENCES

1. Merin, S., et al. 1975. Mucolipidosis IV: ocular, systemic, and ultrastructural findings. Invest. Ophthalmol. 14: 437-448.
2. Bargal, R., et al. 2000. Identification of the gene causing mucolipidosis type IV. Nat. Genet. 26: 118-123.
3. Sun, M., et al. 2000. Mucolipidosis type IV is caused by mutations in a gene encoding a novel transient receptor potential channel. Hum. Mol. Genet. 9: 2471-2478.

SOURCE

mucolipin 1 (L-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of mucolipin 1 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-26266 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

mucolipin 1 (L-15) is recommended for detection of mucolipin 1 and, to a lesser extent, mucolipin 2 and 3 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).

mucolipin 1 (L-15) is also recommended for detection of mucolipin 1 and, to a lesser extent, mucolipin 2 and 3 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for mucolipin 1 siRNA (h): sc-44519 and mucolipin 1 siRNA (m): sc-44520.

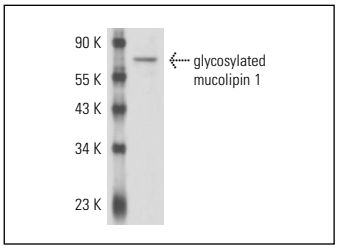
Molecular Weight of NRSF: 65 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

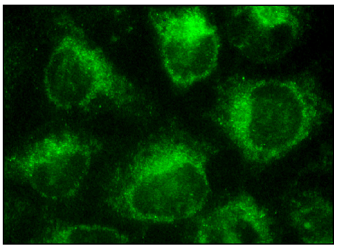
RECOMMENDED SECONDARY REAGENTS

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



mucolipin 1 (L-15): sc-26266. Western blot analysis of mucolipin 1 expression in Jurkat whole cell lysate.



mucolipin 1 (L-15): sc-26266. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

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.