

# mucolipin 2 (I-20): sc-51329

## BACKGROUND

The mucolipins are a family of cation channel proteins designated mucolipin 1, mucolipin 2 and mucolipin 3. Mucolipin 2 is a lysosomal protein that interacts with the ARF6-associated pathway through co-localization with the cargo proteins CD59 and MHC1. These interactions are thought to traffic and regulate the sorting of certain glycosyl-anchored proteins in the ARF6-associated pathway. Mucolipin 2 is found primarily in the plasma membrane, but is also expressed in intracellular vesicles, tubular structures and B lymphocytes. Mucolipin 2 expression in B lymphocytes and its association with Bruton's tyrosine kinase suggests a possible role in B lymphocyte development. Additionally, defects in the mucolipin 2 gene may be associated with certain neurosensory disorders, as well as swelling of late endosomes and lysosomes.

## REFERENCES

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3. Chenik, M., Douagi, F., Achour, Y.B., Khalef, N.B., Ouakad, M., Louzir, H. and Dellagi, K. 2005. Characterization of two different mucolipin-like genes from *Leishmania major*. *Parasitol. Res.* 98: 5-13.
4. Venkatachalam, K., Hofmann, T. and Montell, C. 2006. Lysosomal localization of TRPML3 depends on TRPML2 and the mucopolidosis-associated protein TRPML1. *J. Biol. Chem.* 281: 17517-17527.
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## CHROMOSOMAL LOCATION

Genetic locus: MCOLN2 (human) mapping to 1p22.3.

## SOURCE

mucolipin 2 (I-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of mucolipin 2 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-51329 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

mucolipin 2 (I-20) is recommended for detection of mucolipin 2 of human 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

mucolipin 2 (I-20) is also recommended for detection of mucolipin 2 in additional species, including equine.

Suitable for use as control antibody for mucolipin 2 siRNA (h): sc-72371, mucolipin 2 shRNA Plasmid (h): sc-72371-SH and mucolipin 2 shRNA (h) Lentiviral Particles: sc-72371-V.

Molecular Weight of mucolipin 2: 67 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.

## 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.