

YIPF4 (N-18): sc-244672



The Power to Question

BACKGROUND

The YIP1 family consists of a group of small membrane proteins that bind Rab GTPases and function in membrane trafficking and vesicle biogenesis. YIPF4 (YIP1 family member 4), also known as FinGER4, MGC11061 or Nbla11189, is a 244 amino acid multi-pass membrane protein belonging to the YIP1 family. YIPF4 is encoded by a gene located on chromosome 2p22.3. Chromosome 2 is the second largest human chromosome that contains more than 243 million base pairs, comprises nearly 8% of the total DNA in cells and is estimated to contain between 1,300 and 1,400 genes. A number of genetic diseases are linked to genes on chromosome 2, including Harlequin ichthyosis, sitosterolemia and Alström syndrome. Chromosome 2 presumably contains a vestigial second centromere and vestigial telomeres, which gives credence to the hypothesis that human chromosome 2 is the result of an ancient fusion of two ancestral chromosomes apparent presently in modern form apes.

REFERENCES

1. Ijdo, J.W., et al. 1991. Origin of human chromosome 2: an ancestral telomere-telomere fusion. *Proc. Natl. Acad. Sci. USA* 88: 9051-9055.
2. Avarello, R., et al. 1992. Evidence for an ancestral alphoid domain on the long arm of human chromosome 2. *Hum. Genet.* 89: 247-249.
3. Hillier, L.W., et al. 2005. Generation and annotation of the DNA sequences of human chromosomes 2 and 4. *Nature* 434: 724-731.
4. Akiyama, M., et al. 2007. Compound heterozygous ABCA12 mutations including a novel nonsense mutation underlie harlequin ichthyosis. *Dermatology* 215: 155-159.
5. Marshall, J.D., et al. 2007. Alström syndrome. *Eur. J. Hum. Genet.* 15: 1193-1202.
6. Marshall, J.D., et al. 2007. Spectrum of ALMS1 variants and evaluation of genotype-phenotype correlations in Alström syndrome. *Hum. Mutat.* 28: 1114-1123.

CHROMOSOMAL LOCATION

Genetic locus: YIPF4 (human) mapping to 2p22.3; Yipf4 (mouse) mapping to 17 E2.

SOURCE

YIPF4 (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of YIPF4 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-244672 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

YIPF4 (N-18) is recommended for detection of YIPF4 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); non cross-reactive with other YIPF family members.

YIPF4 (N-18) is also recommended for detection of YIPF4 in additional species, including canine and bovine.

Suitable for use as control antibody for YIPF4 siRNA (h): sc-94509, YIPF4 siRNA (m): sc-155407, YIPF4 shRNA Plasmid (h): sc-94509-SH, YIPF4 shRNA Plasmid (m): sc-155407-SH, YIPF4 shRNA (h) Lentiviral Particles: sc-94509-V and YIPF4 shRNA (m) Lentiviral Particles: sc-155407-V.

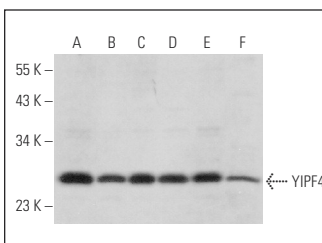
Molecular Weight of YIPF4: 27 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, A-431 whole cell lysate: sc-2201 or Jurkat whole cell lysate: sc-2204.

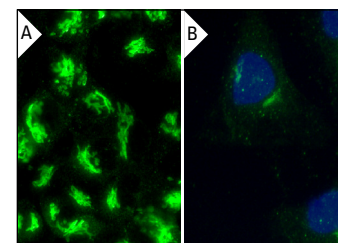
RECOMMENDED SECONDARY REAGENTS

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



YIPF4 (N-18): sc-244672. Western blot analysis of YIPF4 expression in K-562 (A), Jurkat (B), A-431 (C), COLO 205 (D) and HeLa (E) whole cell lysates and mouse brain tissue extract (F).



YIPF4 (N-18): sc-244672. Immunofluorescence staining of formalin-fixed HepG2 (A) and HeLa (B) cells showing Golgi apparatus localization.

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.