SANTA CRUZ BIOTECHNOLOGY, INC.

YIPF4 (E-7): sc-514751

SANTA CRUZ BIOTECHNOLOGY

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 icthyosis, 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.

CHROMOSOMAL LOCATION

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

SOURCE

YIPF4 (E-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 94-117 within an internal region of YIPF4 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

YIPF4 (E-7) is available conjugated to agarose (sc-514751 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514751 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514751 PE), fluorescein (sc-514751 FITC), Alexa Fluor® 488 (sc-514751 AF488), Alexa Fluor® 546 (sc-514751 AF546), Alexa Fluor® 594 (sc-514751 AF594) or Alexa Fluor® 647 (sc-514751 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514751 AF680) or Alexa Fluor® 790 (sc-514751 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514751 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

YIPF4 (E-7) is recommended for detection of YIPF4 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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.

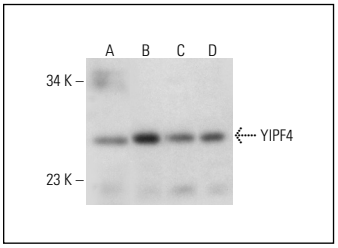
Molecular Weight of YIPF4: 27 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, IMR-32 cell lysate: sc-2409 or Jurkat whole cell lysate: sc-2204.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



YIPF4 (E-7): sc-514751. Western blot analysis of YIPF4 expression in COLO 205 (**A**), K-562 (**B**), Jurkat (**C**) and IMR-32 (**D**) whole cell lysates.

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 for detailed protocols and support products.