

YIF1A (N-15): sc-162410

BACKGROUND

YIF1A is a 293 amino acid gene product that belongs to the YIF1 family. YIF1A is an endoplasmic reticulum and Golgi body localized five pass membrane protein that interacts with YIPF5. It is believed that the interaction between YIPF5 and YIF1A is required for maintenance of Golgi body structure. Further, the location and structure of YIF1A seem to indicate it is likely involved in transport between the Golgi body and the endoplasmic reticulum. YIF1A maps to chromosome 11 which has been shown to overexpress some gene products in squamous cell carcinoma cell lines. Chromosome 11 also houses over 1,400 genes and comprises nearly 4% of the human genome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are associated with defects in genes that maps to chromosome 11.

REFERENCES

1. Matern, H., et al. 2000. A novel Golgi membrane protein is part of a GTPase-binding protein complex involved in vesicle targeting. *EMBO J.* 19: 4485-4492.
2. Jin, C., et al. 2005. Human Yip1A specifies the localization of Yif1 to the Golgi apparatus. *Biochem. Biophys. Res. Commun.* 334: 16-22.
3. Jin, C., et al. 2007. An efficient site-directed mutagenesis method for ColE1-type ori plasmid. *Anal. Biochem.* 363: 151-153.
4. Kama, R., et al. 2007. Btn2, a Hook1 ortholog and potential Batten disease-related protein, mediates late endosome-Golgi protein sorting in yeast. *Mol. Cell. Biol.* 27: 605-621.
5. Yoshida, Y., et al. 2008. YIPF5 and YIF1A recycle between the ER and the Golgi apparatus and are involved in the maintenance of the Golgi structure. *Exp. Cell Res.* 314: 3427-3443.
6. Sugimoto, T., et al. 2009. The galanin signaling cascade is a candidate pathway regulating oncogenesis in human squamous cell carcinoma. *Genes Chromosomes Cancer* 48: 132-142.

CHROMOSOMAL LOCATION

Genetic locus: YIF1A (human) mapping to 11q13.2; Yif1a (mouse) mapping to 19 A.

SOURCE

YIF1A (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal cytoplasmic domain of YIF1A 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-162410 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

YIF1A (N-15) is recommended for detection of YIF1A of human and mouse origin and the corresponding rat homolog 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 YIF1B.

YIF1A (N-15) is also recommended for detection of YIF1A in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for YIF1A siRNA (h): sc-97028, YIF1A siRNA (m): sc-155402, YIF1A shRNA Plasmid (h): sc-97028-SH, YIF1A shRNA Plasmid (m): sc-155402-SH, YIF1A shRNA (h) Lentiviral Particles: sc-97028-V and YIF1A shRNA (m) Lentiviral Particles: sc-155402-V.

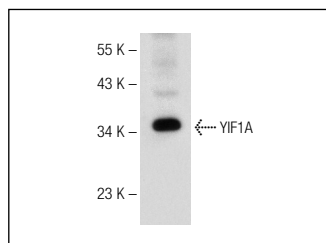
Molecular Weight of YIF1A: 32 kDa.

Positive Controls: SK-BR-3 cell lysate: sc-2218, U-251-MG whole cell lysate: sc-364176 or RAW 264.7 whole cell lysate: sc-2211.

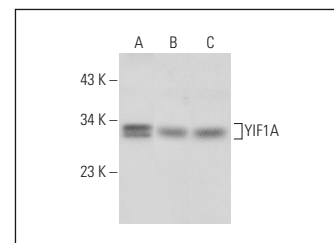
RECOMMENDED SECONDARY REAGENTS

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



YIF1A (N-15): sc-162410. Western blot analysis of YIF1A expression in SKBR-3 whole cell lysate.



YIF1A (N-15): sc-162410. Western blot analysis of YIF1A expression in U-251-MG (A), NIH/3T3 (B) and RAW 264.7 (C) 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.

PROTOCOLS

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