SANTA CRUZ BIOTECHNOLOGY, INC.

YMER (A-10): sc-398994

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

YMER, also known as CCDC50 (coiled-coil domain containing 50), C3orf6 or DFNA44, is a 306 amino acid cytoplasmic protein that exists as two alternatively spliced isoforms involved in EGFR signaling. YMER isoforms 1 and 2 (also designated isoforms short and long) are co-expressed in pancreas, placenta, liver, lung and kidney, but only isoform 1 is found at high levels in heart, brain and skeletal muscle. Containing multiple ubiquitin-interacting domains as well as tyrosine-phosphorylated residues, YMER negatively regulates NFκB. The gene encoding YMER maps to human chromosome 3q28, and, when defective, is the cause of a form of hearing loss known as deafness autosomal dominant type 44 (DFNA44).

REFERENCES

1. Vazza, G., et al. 2003. Identification and characterization of C3orf6, a new conserved human gene mapping to chromosome 3q28. Gene 314: 113-120.
2. Modamio-Hoybjor, S., et al. 2003. A novel locus for autosomal dominant nonsyndromic hearing loss (DFNA44) maps to chromosome 3q28-29. Hum. Genet. 112: 24-28.
3. Tashiro, K., et al. 2006. Suppression of the ligand-mediated down-regulation of epidermal growth factor receptor by Ymer, a novel tyrosine-phosphorylated and ubiquitinated protein. J. Biol. Chem. 281: 24612-24622.
4. Modamio-Hoybjor, S., et al. 2007. A mutation in CCDC50, a gene encoding an effector of epidermal growth factor-mediated cell signaling, causes progressive hearing loss. Am. J. Hum. Genet. 80: 1076-1089.
5. Online Mendelian Inheritance in Man, OMIM™. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 611051. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
6. Kameda, H., et al. 2009. Inhibition of NFκB signaling via tyrosine phosphorylation of Ymer. Biochem. Biophys. Res. Commun. 378: 744-749.

CHROMOSOMAL LOCATION

Genetic locus: CCDC50 (human) mapping to 3q28.

SOURCE

YMER (A-10) is a mouse monoclonal antibody raised against amino acids 1-100 mapping at the N-terminus of YMER of human origin.

PRODUCT

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

YMER (A-10) is available conjugated to agarose (sc-398994 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-398994 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398994 PE), fluorescein (sc-398994 FITC), Alexa Fluor® 488 (sc-398994 AF488), Alexa Fluor® 546 (sc-398994 AF546), Alexa Fluor® 594 (sc-398994 AF594) or Alexa Fluor® 647 (sc-398994 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398994 AF680) or Alexa Fluor® 790 (sc-398994 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

YMER (A-10) is recommended for detection of YMER of 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 YMER siRNA (h): sc-76942, YMER shRNA Plasmid (h): sc-76942-SH and YMER shRNA (h) Lentiviral Particles: sc-76942-V.

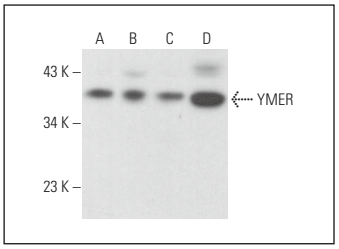
Molecular Weight of YMER isoforms: 36/56 kDa.

Positive Controls: YMER (h): 293T Lysate: sc-117018, A-431 whole cell lysate: sc-2201 or HeLa whole cell lysate: sc-2200.

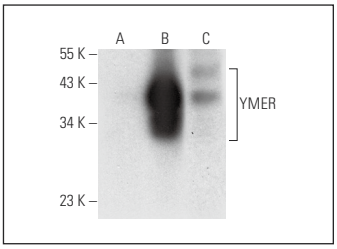
RECOMMENDED SUPPORT REAGENTS

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



YMER (A-10): sc-398994. Western blot analysis of YMER expression in HeLa (**A**), CCD-1064Sk (**B**), A-431 (**C**) and 3T3-L1 (**D**) whole cell lysates.



YMER (A-10): sc-398994. Western blot analysis of YMER expression in non-transfected 293T: sc-117752 (**A**), human YMER transfected 293T: sc-117018 (**B**) and HeLa (**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.

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.