

# YMER (I-12): sc-79367

## 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., Picelli, S., Bozzato, A. and Mostacciuolo, M.L. 2003. Identification and characterization of C3orf6, a new conserved human gene mapping to chromosome 3q28. *Gene* 314: 113-120.
2. Modamio-Højbjør, S., Moreno-Pelayo, M.A., Mencía, A., del Castillo, I., Chardenoux, S., Armenta, D., Lathrop, M., Petit, C. and Moreno, F. 2003. A novel locus for autosomal dominant nonsyndromic hearing loss (DFNA44) maps to chromosome 3q28-29. *Hum. Genet.* 112: 24-28.
3. Tashiro, K., Konishi, H., Sano, E., Nabeshi, H., Yamauchi, E. and Taniguchi, H. 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-Hoybjør, S., Mencía, A., Goodyear, R., del Castillo, I., Richardson, G., Moreno, F. and Moreno-Pelayo, M.A. 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., Watanabe, M., Bohgaki, M., Tsukiyama, T. and Hatakeyama, S. 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; Ccdc50 (mouse) mapping to 16 B2.

## SOURCE

YMER (I-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of YMER 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-79367 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

YMER (I-12) is recommended for detection of YMER 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).

Suitable for use as control antibody for YMER siRNA (h): sc-76942, YMER siRNA (m): sc-76943, YMER shRNA Plasmid (h): sc-76942-SH, YMER shRNA Plasmid (m): sc-76943-SH, YMER shRNA (h) Lentiviral Particles: sc-76942-V and YMER shRNA (m) Lentiviral Particles: sc-76943-V.

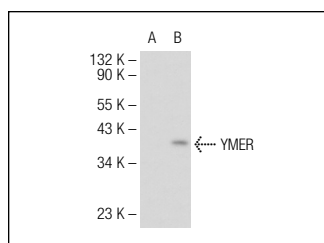
Molecular Weight of YMER isoforms: 36/56 kDa.

Positive Controls: YMER (h): 293T Lysate: sc-117018.

## 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



YMER (I-12): sc-79367. Western blot analysis of YMER expression in non-transfected: sc-117752 (A) and human YMER transfected: sc-117018 (B) 293T 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](http://www.scbt.com) or our catalog for detailed protocols and support products.