

# YTHDF2 (S-14): sc-162427

## BACKGROUND

The YTH domain family protein family (YTHDF) includes YTHDF1, YTHDF2 and YTHDF3. YTHDF2 (YTH domain family, member 2), also designated high-glucose-regulated protein 8, CLL-associated antigen KW-14 or renal carcinoma antigen NY-REN-2, is a 579 amino acid protein that also contains one YTH domain and exists as two alternatively spliced isoforms. Expressed in pancreas, testis and placenta, YTHDF2 has been identified as a translocation partner gene for RUNX1 and is encoded by a gene mapping to human chromosome 1p35.3. Human chromosome 1 spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome. Chromosome 1 houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome.

## REFERENCES

1. Eudy, J.D., et al. 1998. Mutation of a gene encoding a protein with extracellular matrix motifs in Usher syndrome type IIa. *Science* 280: 1753-1757.
2. Bonafè, M., et al. 2001. Increase of homozygosity in centenarians revealed by a new inter-Alu PCR technique. *Exp. Gerontol.* 36: 1063-1073.
3. Tayebi, N., et al. 2001. Gaucher disease and parkinsonism: a phenotypic and genotypic characterization. *Mol. Genet. Metab.* 73: 313-321.
4. Plasilova, M., et al. 2004. Exclusion of an extracolonic disease modifier locus on chromosome 1p33-36 in a large Swiss familial adenomatous polyposis kindred. *Eur. J. Hum. Genet.* 12: 365-371.
5. Nguyen, T.T., et al. 2006. Identification of novel RUNX1 (AML1) translocation partner genes SH3D19, YTHDF2, and ZNF687 in acute myeloid leukemia. *Genes Chromosomes Cancer* 45: 918-932.
6. Cardelli, M., et al. 2006. A polymorphism of the YTHDF2 gene (1p35) located in an Alu-rich genomic domain is associated with human longevity. *J. Gerontol. A Biol. Sci. Med. Sci.* 61: 547-556.

## CHROMOSOMAL LOCATION

Genetic locus: YTHDF21 (human) mapping to 1p35.3; Ythdf2 (mouse) mapping to 4 D2.3.

## SOURCE

YTHDF2 (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of YTHDF2 of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-162427 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

YTHDF2 (S-14) is recommended for detection of YTHDF2 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 YTHDF1 or YTHDF3.

YTHDF2 (S-14) is also recommended for detection of YTHDF2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for YTHDF2 siRNA (h): sc-78661, YTHDF2 siRNA (m): sc-155424, YTHDF2 shRNA Plasmid (h): sc-78661-SH, YTHDF2 shRNA Plasmid (m): sc-155424-SH, YTHDF2 shRNA (h) Lentiviral Particles: sc-78661-V and YTHDF2 shRNA (m) Lentiviral Particles: sc-155424-V.

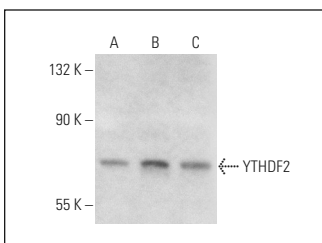
Molecular Weight of YTHDF2: 62 kDa.

Positive Controls: SK-MEL-28 cell lysate: sc-2236, CCD-1064Sk cell lysate: sc-2263 or HeLa whole cell lysate: sc-2200.

## 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



YTHDF2 (S-14): sc-162427. Western blot analysis of YTHDF2 expression in SK-MEL-28 (A), CCD-1064Sk (B) and HeLa (C) whole cell lysates.

## 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.