

# Raver2 (E-14): sc-165338

## BACKGROUND

Raver2, also known as Ribonucleoprotein PTB-binding 2, is a 691 amino acid protein that contains 3 RRM (RNA recognition motif) domains, 2 putative nuclear localization signals and a central leucine-rich region. Ubiquitously expressed, Raver2 highly expressed in brain and lowly expressed in pancreas and testis. In adult mice, Raver2 shows restricted expression in brain, lung, and kidney, whereas Raver1 is ubiquitously expressed. Raver2 interacts with hnRNP (heterogeneous nuclear ribonucleoprotein polypeptide I) and Raver1 and may bind single stranded nucleic acids. The conserved mode of polypyrimidine tract-binding protein (PTB) binding suggests that Raver2, like Raver1, may function as a modulator of hnRNP activity. Raver2 is phosphorylated upon DNA damage, probably by ATM or ATR. Existing as two alternatively spliced isoforms, the Raver2 gene is conserved in chimpanzee, canine, bovine, mouse, rat, chicken and zebrafish, and maps to human chromosome 1p31.3.

## REFERENCES

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2. Kleinhenz, B., et al. 2005. Raver2, a new member of the hnRNP family. *FEBS Lett.* 579: 4254-4258.
3. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 609953. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Zieseniss, A., et al. 2007. Raver1 is an integral component of muscle contractile elements. *Cell Tissue Res.* 327: 583-594.
5. Lahmann, I., et al. 2008. The hnRNP and cytoskeletal protein Raver1 contributes to synaptic plasticity. *Exp. Cell Res.* 314: 1048-1060.
6. Norton, J.T., et al. 2009. The perinucleolar compartment is directly associated with DNA. *J. Biol. Chem.* 284: 4090-4101.
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## CHROMOSOMAL LOCATION

Genetic locus: RAVER2 (human) mapping to 1p31.3; Raver2 (mouse) mapping to 4 C6.

## SOURCE

Raver2 (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Raver2 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-165338 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Raver2 (E-14) is recommended for detection of Raver2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 Raver1.

Suitable for use as control antibody for Raver2 siRNA (h): sc-88642, Raver2 siRNA (m): sc-152718, Raver2 shRNA Plasmid (h): sc-88642-SH, Raver2 shRNA Plasmid (m): sc-152718-SH, Raver2 shRNA (h) Lentiviral Particles: sc-88642-V and Raver2 shRNA (m) Lentiviral Particles: sc-152718-V.

Molecular Weight of Raver2 isoforms 1/2: 74/73 kDa.

## 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) 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.

## 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.