

RREB1 (E-8): sc-515901



The Power to Question

BACKGROUND

RREB1 (Ras responsive element binding protein 1), also known as FINB, LZ321 or Zep-1, is a 1,687 amino acid protein that localizes to nuclear speckles and contains 15 C₂H₂-type zinc fingers. Expressed in pancreas, heart, liver, placenta, lung, kidney and skeletal muscle, RREB1 functions as a transcription factor that binds to the Ras-responsive element (RRE) of target gene promoters, thereby inducing their transcription. In addition, RREB1 is thought to be involved in Raf/Ras-mediated cell differentiation, possibly by enhancing the expression of Calcitonin, a hormone that is produced by the thyroid gland and plays an essential role in maintaining blood calcium levels. Due to its involvement in cell differentiation events, RREB1 may be involved in Raf/Ras-related tumor formation. Four isoforms of RREB1 exist due to alternative splicing.

REFERENCES

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2. Thiagalingam, A., et al. 1996. RREB-1, a novel zinc finger protein, is involved in the differentiation response to Ras in human medullary thyroid carcinomas. *Mol. Cell. Biol.* 16: 5335-5345.
3. Fujimoto-Nishiyama, A., et al. 1997. A novel zinc finger protein, Finb, is a transcriptional activator and localized in nuclear bodies. *Gene* 195: 267-275.
4. Thiagalingam, A., et al. 1997. RREB1, a Ras responsive element binding protein, maps to human chromosome 6p25. *Genomics* 45: 630-632.
5. Zhang, L., et al. 1999. A human Raf-responsive zinc-finger protein that binds to divergent sequences. *Nucleic Acids Res.* 27: 2947-2956.
6. Ray, S.K., et al. 2003. Novel transcriptional potentiation of BETA2/NeuroD on the secretin gene promoter by the DNA-binding protein Finb/RREB-1. *Mol. Cell. Biol.* 23: 259-271.
7. Zhang, S., et al. 2003. p16^{INK4a} gene promoter variation and differential binding of a repressor, the Ras-responsive zinc-finger transcription factor, RREB. *Oncogene* 22: 2285-2295.
8. Date, S., et al. 2004. Finb, a multiple zinc finger protein, represses transcription of the human angiotensinogen gene. *Int. J. Mol. Med.* 13: 637-642.

CHROMOSOMAL LOCATION

Genetic locus: RREB1 (human) mapping to 6p24.3; Rreb1 (mouse) mapping to 13 A3.3.

SOURCE

RREB1 (E-8) is a mouse monoclonal antibody raised against amino acids 1558-1687 mapping at the C-terminus of RREB1 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.

APPLICATIONS

RREB1 (E-8) is recommended for detection of RREB1 of mouse, rat and 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 RREB1 siRNA (h): sc-95379, RREB1 siRNA (m): sc-153127, RREB1 shRNA Plasmid (h): sc-95379-SH, RREB1 shRNA Plasmid (m): sc-153127-SH, RREB1 shRNA (h) Lentiviral Particles: sc-95379-V and RREB1 shRNA (m) Lentiviral Particles: sc-153127-V.

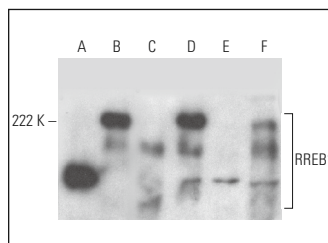
Molecular Weight of RREB1: 181 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214, HeLa whole cell lysate: sc-2200 or MDA-MB-231 cell lysate: sc-2232.

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



RREB1 (E-8): sc-515901. Western blot analysis of RREB1 expression in KNRK (A), HeLa (B), NCI-H460 (C), MDA-MB-231 (D), U266 (E) and TT (F) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Lee, J.H., et al. 2024. TGF-β and RAS jointly unmask primed enhancers to drive metastasis. *Cell* 187: 6182-6199.e29.

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.