

PPP1R15B (P-12): sc-138536

BACKGROUND

PPP1R15B (protein phosphatase 1, regulatory (inhibitor) subunit 15B), also known as CREP, is a 713 amino acid protein belonging to the PPP1R15 family. Functioning as part of a complex that contains PP1 and NCK1/2, PPP1R15B assists the essential process of dephosphorylation of eIF2 α , a transcription initiation factor, by way of protein phosphatase 1 (PP1) catalytic subunits. The complex, however, can be inhibited by Salubrinal, a drug that protects cells from endoplasmic reticulum stress. PPP1R15B is a strong, direct-target candidate for activation of nuclear factor erythroid 2-related factor (Nrf2), which regulates transcription of several gene products involved in the protective response to oxidative stress. Gene overexpression can occur at chromosome 1q32.1, which includes PPP1R15B, suggesting that the region is involved in the pathogenesis of glioblastoma multiforme (GBM).

REFERENCES

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8. Lee, J.E., et al. 2010. Systematic analysis of cis-elements in unstable mRNAs demonstrates that CUGBP1 is a key regulator of mRNA decay in muscle cells. *PLoS ONE* 5: e11201.
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CHROMOSOMAL LOCATION

Genetic locus: PPP1R15B (human) mapping to 1q32.1; Ppp1r15b (mouse) mapping to 1 E4.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

SOURCE

PPP1R15B (P-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PPP1R15B of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-138536 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PPP1R15B (P-12) is recommended for detection of PPP1R15B 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).

Suitable for use as control antibody for PPP1R15B siRNA (h): sc-88234, PPP1R15B siRNA (m): sc-152418, PPP1R15B shRNA Plasmid (h): sc-88234-SH, PPP1R15B shRNA Plasmid (m): sc-152418-SH, PPP1R15B shRNA (h) Lentiviral Particles: sc-88234-V and PPP1R15B shRNA (m) Lentiviral Particles: sc-152418-V.

Molecular Weight of PPP1R15B: 79 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.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.