

PPPDE2 (A-6): sc-393863

BACKGROUND

PPPDE2 (PPPDE peptidase domain-containing protein 2), also known as FAM152B, is a 168 amino acid protein that exists as a homodimer and belongs to the DeSI family. Localizing to the nucleus and cytoplasm, PPPDE2 deconjugates SUMO1, SUMO2 and SUMO3 and has isopeptidase but not SUMO-processing activity. PPPDE2 is post-translationally phosphorylated at serine 25 and is encoded by a gene that maps to human chromosome 22. Chromosome 22 houses over 500 genes and is the second smallest human chromosome. Mutations in several of the genes that map to chromosome 22 are involved in the development of Phelan-McDermid syndrome, Neurofibromatosis type 2, autism and schizophrenia. Additionally, translocations between chromosomes 9 and 22 may lead to the formation of the Philadelphia Chromosome and the subsequent production of the novel fusion protein Bcr-Abl, a potent cell proliferation activator found in several types of leukemias.

REFERENCES

- Collins, J.E., et al. 2004. A genome annotation-driven approach to cloning the human ORFeome. *Genome Biol.* 5: R84.
- Briegel, W. and Cohen, M. 2004. Chromosome 22q11 deletion syndrome and its relevance for child and adolescent psychiatry. An overview of etiology, physical symptoms, aspects of child development and psychiatric disorders. *Z. Kinder Jugendpsychiatr. Psychother.* 32: 107-115.
- Gothelf, D., et al. 2008. Genes, brain development and psychiatric phenotypes in velo-cardio-facial syndrome. *Dev. Disabil. Res. Rev.* 14: 59-68.

CHROMOSOMAL LOCATION

Genetic locus: DESI1 (human) mapping to 22q13.2; Desi1 (mouse) mapping to 15 E1.

SOURCE

PPPDE2 (A-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 51-72 within an internal region of PPPDE2 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PPPDE2 (A-6) is available conjugated to agarose (sc-393863 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393863 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393863 PE), fluorescein (sc-393863 FITC), Alexa Fluor® 488 (sc-393863 AF488), Alexa Fluor® 546 (sc-393863 AF546), Alexa Fluor® 594 (sc-393863 AF594) or Alexa Fluor® 647 (sc-393863 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393863 AF680) or Alexa Fluor® 790 (sc-393863 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-393863 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

PPPDE2 (A-6) is recommended for detection of PPPDE2 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).

PPPDE2 (A-6) is also recommended for detection of PPPDE2 in additional species, including canine.

Suitable for use as control antibody for PPPDE2 siRNA (h): sc-77087, PPPDE2 siRNA (m): sc-142791, PPPDE2 shRNA Plasmid (h): sc-77087-SH, PPPDE2 shRNA Plasmid (m): sc-142791-SH, PPPDE2 shRNA (h) Lentiviral Particles: sc-77087-V and PPPDE2 shRNA (m) Lentiviral Particles: sc-142791-V.

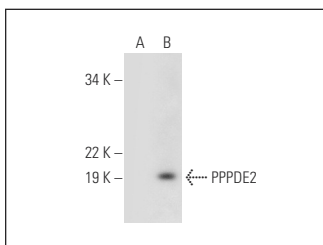
Molecular Weight of PPPDE2: 18 kDa.

Positive Controls: PPPDE2 (m): 293T Lysate: sc-119635.

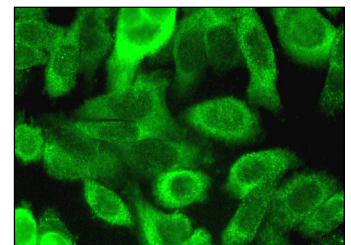
RECOMMENDED SUPPORT REAGENTS

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



PPPDE2 (A-6): sc-393863. Western blot analysis of PPPDE2 expression in non-transfected: sc-117752 (A) and mouse PPPDE2 transfected: sc-119635 (B) 293T whole cell lysates.



PPPDE2 (A-6): sc-393863. Immunofluorescence staining of formalin-fixed SW480 cells showing cytoplasmic localization.

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.