

# PREP (C-12): sc-365416

## BACKGROUND

PREP (prolyl endopeptidase), also known as PE or PEP, is a 710 amino acid protein that localizes to the cytoplasm and belongs to the peptidase S9A family. Existing as a monomer, PREP functions as a prolyl endopeptidase that specifically cleaves peptide bonds on the C-terminal side of prolyl residues within proteins that are approximately 30 amino acids long. Via its catalytic activity, PREP is thought to be involved in the formation and degradation of neuropeptides and hormones, indicating involvement in signaling and regulatory pathways throughout the body. The gene encoding PREP maps to human chromosome 6, which contains 170 million base pairs and comprises nearly 6% of the human genome. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Additionally, Porphyria cutanea tarda, Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.

## CHROMOSOMAL LOCATION

Genetic locus: PREP (human) mapping to 6q21; Prep (mouse) mapping to 10 B2.

## SOURCE

PREP (C-12) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of PREP (Prolyl endopeptidase) of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PREP (C-12) is available conjugated to agarose (sc-365416 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365416 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365416 PE), fluorescein (sc-365416 FITC), Alexa Fluor® 488 (sc-365416 AF488), Alexa Fluor® 546 (sc-365416 AF546), Alexa Fluor® 594 (sc-365416 AF594) or Alexa Fluor® 647 (sc-365416 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365416 AF680) or Alexa Fluor® 790 (sc-365416 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

PREP (C-12) is recommended for detection of PREP 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 PREP siRNA (h): sc-76244, PREP siRNA (m): sc-76245, PREP shRNA Plasmid (h): sc-76244-SH, PREP shRNA Plasmid (m): sc-76245-SH, PREP shRNA (h) Lentiviral Particles: sc-76244-V and PREP shRNA (m) Lentiviral Particles: sc-76245-V.

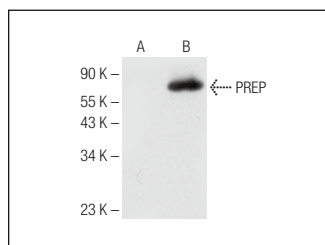
Molecular Weight of PREP: 80 kDa.

Positive Controls: PREP (m): 293T Lysate: sc-122762.

## 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



PREP (C-12): sc-365416. Western blot analysis of PREP expression in non-transfected: sc-117752 (A) and mouse PREP transfected: sc-122762 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

- Shirenova, S.D., et al. 2021. Long-term social isolation reduces expression of the BDNF precursor and prolyl endopeptidase in the rat brain. *Biochemistry* 86: 704-715.
- Filippone, A., et al. 2021. Inhibition of prolyl oligopeptidase prevents consequences of reperfusion following intestinal ischemia. *Biomedicine* 9: 1354.
- Scuderi, S.A., et al. 2021. Beneficial effect of KYP-2047, a propyl-oligopeptidase inhibitor, on oral squamous cell carcinoma. *Oncotarget* 12: 2459-2473.

## 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) for detailed protocols and support products.

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