

# DPEP1 (S-14): sc-109261

## BACKGROUND

DPEP1 (dipeptidase 1), also known as MDP, RDP or MBD1, is a 411 amino acid renal protein that localizes to the apical cell membrane and belongs to the peptidase M19 family. Existing as a disulfide-linked homodimer, DPEP1 uses zinc as a cofactor to catalyze the hydrolysis of various dipeptides and, via its catalytic activity, plays a role in glutathione and leukotriene metabolism. DPEP1 is functionally inhibited by L-penicillamine and is subject to post-translational N-glycosylation. The gene encoding DPEP1 maps to human chromosome 16, which encodes over 900 genes and comprises nearly 3% of the human genome. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth. The rare disorder Rubinstein-Taybi syndrome is also associated with chromosome 16, as is Crohn's disease, which is a gastrointestinal inflammatory condition.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: Dpep1 (mouse) mapping to 8 E1.

## SOURCE

DPEP1 (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of DPEP1 of mouse origin.

## STORAGE

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

## PRODUCT

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

Blocking peptide available for competition studies, sc-109261 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

DPEP1 (S-14) is recommended for detection of DPEP1 of mouse and rat 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).

DPEP1 (S-14) is also recommended for detection of DPEP1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for DPEP1 siRNA (m): sc-143152, DPEP1 shRNA Plasmid (m): sc-143152-SH and DPEP1 shRNA (m) Lentiviral Particles: sc-143152-V.

Molecular Weight of DPEP1 monomer: 42 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](http://www.scbt.com) or our catalog for detailed protocols and support products.