

DPEP3 (N-16): sc-164219

BACKGROUND

DPEP3 (dipeptidase 3), also known as MBD3 (membrane-bound dipeptidase 3), is a 488 amino acid protein that belongs to the peptidase M19 family and is thought to function as a metalloprotease. A membrane protein expressed in testis, DPEP3 exists as a disulfide-linked homodimer and may be involved in meiosis. DPEP3 binds zinc as a cofactor, is inhibited by L-penicillamine and is encoded by a gene that maps to human chromosome 16q22.1. Chromosome 16 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 mal-function 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

1. Bomont, P., et al. 2000. The gene encoding gigaxonin, a new member of the cytoskeletal BTB/kelch repeat family, is mutated in giant axonal neuropathy. *Nat. Genet.* 26: 370-374.
2. Kuhlensäumer, G., et al. 2002. Giant axonal neuropathy (GAN): case report and two novel mutations in the gigaxonin gene. *Neurology* 58: 1273-1276.
3. Habib, G.M., et al. 2003. Identification of two additional members of the membrane-bound dipeptidase family. *FASEB J.* 17: 1313-1315.
4. Cho, J.H. 2004. Advances in the genetics of inflammatory bowel disease. *Curr. Gastroenterol. Rep.* 6 467-473.
5. Mathew, C.G., et al. 2004. Genetics of inflammatory bowel disease: progress and prospects. *Hum. Mol. Genet.* 13: R161-R168.
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CHROMOSOMAL LOCATION

Genetic locus: DPEP3 (human) mapping to 16q22.1.

SOURCE

DPEP3 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of DPEP3 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-164219 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

DPEP3 (N-16) is recommended for detection of DPEP3 of human origin by Western Blotting (starting dilution 1:200, 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); non cross-reactive with DPEP1 or DPEP2.

Suitable for use as control antibody for DPEP3 siRNA (h): sc-93340, DPEP3 shRNA Plasmid (h): sc-93340-SH and DPEP3 shRNA (h) Lentiviral Particles: sc-93340-V.

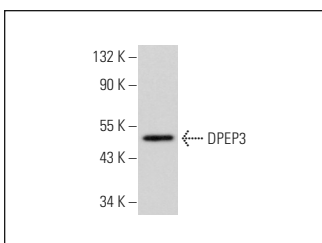
Molecular Weight of DPEP3: 54 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203 or Hep G2 cell lysate: sc-2227.

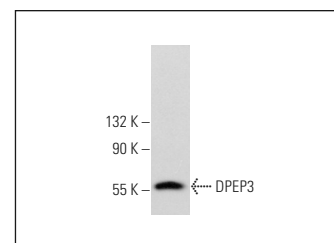
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



DPEP3 (N-16): sc-164219. Western blot analysis of DPEP3 expression in K-562 whole cell lysate.



DPEP3 (N-16): sc-164219. Western blot analysis of DPEP3 expression in Hep G2 whole cell lysate.

PROTOCOLS

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


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Try **DPEP3 (F-3): sc-515350**, our highly recommended monoclonal alternative to DPEP3 (N-16).