SANTA CRUZ BIOTECHNOLOGY, INC.

PEPD (H-205): sc-292938

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

PEPD (peptidase D), also referred to as prolidase, is a cytosolic dipeptidase that belongs to the peptidase M24B family. PEPD hydrolyzes di- and tripeptides with proline or hydroxyproline at the C-terminus. PEPD functions as a homodimer and may play an important role in collagen metabolism as well as in the recycling of proline in various cells and tissues. Defects in the gene encoding PEPD are the primary cause of prolidase deficiency in humans. Prolidase deficiency is an autosomal recessive disorder associated with iminodipeptiduria and is characterized by skin ulcers, mental retardation, recurrent infections and A-typical facies. Mutations in the gene encoding PEPD may also be the cause of systemic lupus erythematosus and necrosis-like cell death in fibroblasts. Additionally, there is thought to be a tight linkage between the polymorphisms of prolidase and the myotonic dystrophy trait.

REFERENCES

1. Leoni, A., et al. 1987. Prolidase deficiency in two siblings with chronic leg ulcerations. Clinical, biochemical, and morphologic aspects. Arch. Dermatol. 123: 493-499.
2. Boright, A.P., et al. 1989. Prolidase deficiency: biochemical classification of alleles. Am. J. Hum. Genet. 44: 731-740.

CHROMOSOMAL LOCATION

Genetic locus: PEPD (human) mapping to 19q13.11; Pepd (mouse) mapping to 7 B1.

SOURCE

PEPD (H-205) is a rabbit polyclonal antibody raised against amino acids 101-305 mapping within an internal region of PEPD 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.

APPLICATIONS

PEPD (H-205) is recommended for detection of PEPD of mouse, rat and 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).

PEPD (H-205) is also recommended for detection of PEPD in additional species, including equine, canine and bovine.

Suitable for use as control antibody for PEPD siRNA (h): sc-97436, PEPD siRNA (m): sc-152165, PEPD shRNA Plasmid (h): sc-97436-SH, PEPD shRNA Plasmid (m): sc-152165-SH, PEPD shRNA (h) Lentiviral Particles: sc-97436-V and PEPD shRNA (m) Lentiviral Particles: sc-152165-V.

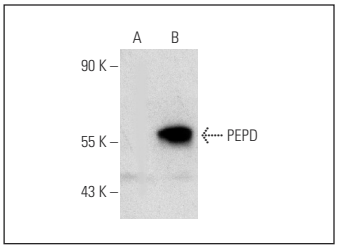
Molecular Weight of PEPD: 58 kDa.

Positive Controls: PEPD (h4): 293T Lysate: sc-158843.

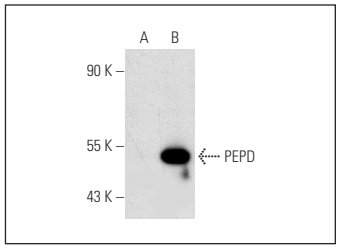
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



PEPD (H-205): sc-292938. Western blot analysis of PEPD expression in non-transfected: sc-117752 (**A**) and human PEPD transfected: sc-158843 (**B**) 293T whole cell lysates.



PEPD (H-205): sc-292938. Western blot analysis of PEPD expression in non-transfected: sc-117752 (**A**) and human PEPD transfected: sc-113886 (**B**) 293T whole cell lysates.

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 or our catalog for detailed protocols and support products.