SANTA CRUZ BIOTECHNOLOGY, INC.

# CPD (S-16): sc-164113

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

Members of the M14 metallocarboxypeptidase protein family serve many diverse functions and are divided into three subfamilies based on structure, function and amino acid sequence similarity. CPD (carboxypeptidase D), also known as GP180 or metallocarboxypeptidase D, is a 1,380 amino acid single-pass type I membrane protein that belongs to the peptidase M14 family. CPD binds two zinc ions per subunit and contains three carboxypeptidase-like domains. CPD causes the release of C-terminal arganine and lysine from polypeptides. Highest expression of CPD is found in pancreas, hepatoma cells and placenta, with lower levels in heart, skeletal muscle and colon carcinoma. Mammalian CPD is a homolog of the duck hepatitis B virus-binding protein gp180.

## REFERENCES


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4. Hadkar, V., et al. 2001. Carboxypeptidase D is upregulated in raw 264.7 macrophages and stimulates nitric oxide synthesis by cells in arginine-free medium. Mol. Pharmacol. 59: 1324-1332.
5. Fan, X., et al. 2002. Immunohistochemical localization of carboxypeptidases D, E, and Z in pituitary adenomas and normal human pituitary. J. Histochem. Cytochem. 50: 1509-1516.
6. Kalinina, E.V., et al. 2003. Palmitoylation of carboxypeptidase D. Implications for intracellular trafficking. J. Biol. Chem. 278: 9244-9249.
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8. O'Malley, P.G., et al. 2005. Characterization of a novel, cytokine-inducible carboxypeptidase D isoform in haematopoietic tumour cells. Biochem. J. 390: 665-673.
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## CHROMOSOMAL LOCATION

Genetic locus: CPD (human) mapping to 17q11.2; Cpd (mouse) mapping to 11 B5.

## SOURCE

CPD (S-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of CPD 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-164113 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

CPD (S-16) is recommended for detection of CPD of mouse, rat and human 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).

CPD (S-16) is also recommended for detection of CPD in additional species, including equine, canine and porcine.

Suitable for use as control antibody for CPD siRNA (h): sc-93823, CPD siRNA (m): sc-142542, CPD shRNA Plasmid (h): sc-93823-SH, CPD shRNA Plasmid (m): sc-142542-SH, CPD shRNA (h) Lentiviral Particles: sc-93823-V and CPD shRNA (m) Lentiviral Particles: sc-142542-V.

Molecular Weight of CPD: 153 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.

## 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.