

# CPN reg (C-20): sc-18969

## BACKGROUND

Carboxypeptidase N (arginine carboxypeptidase or CPN) cleaves basic amino acid residues from the carboxy terminal of peptides and proteins. The enzyme plays a central role in regulating the biologic activity of peptides such as kinins and anaphylatoxins, and therefore is also known as kininase-1 and anaphylatoxin inactivator. CPN is a tetrameric complex consisting of two identical regulatory subunits (CPN reg) and two identical catalytic subunits (CPN cat). The two glycosylated CPN reg subunits protect the two CPN cat subunits and keep them in the circulation. CPN reg is a member of the leucine-rich repeat family of proteins and the gene which encodes CPN reg maps to human chromosome 8p22-p23. CPN cat is a member of the regulatory B-type carboxypeptidase group and the gene which encodes CPN cat maps to human chromosome 10.

## REFERENCES

1. Erdos, E.G. 1990. Some old and some new ideas on kinin metabolism. *J. Cardiovasc. Pharmacol.* 15: 20-24.
2. Tan, F., Weerasinghe, D.K., Skidgel, R.A., Tamei, H., Kaul, R.K., Roninson, I.B., Schilling, J.W. and Erdos, E.G. 1990. The deduced protein sequence of the human carboxypeptidase N high molecular weight subunit reveals the presence of leucine-rich tandem repeats. *J. Biol. Chem.* 265: 13-19.
3. Riley, D.A., Tan, F., Miletich, D.J. and Skidgel, R.A. 1998. Chromosomal localization of the genes for human carboxypeptidase D (CPD) and the active 50-kilodalton subunit of human carboxypeptidase N (CPN1). *Genomics* 50: 105-108.
4. LocusLink Report (LocusID: 603104). <http://www.ncbi.nlm.nih.gov/LocusLink/>

## CHROMOSOMAL LOCATION

Genetic locus: CPN2 (human) mapping to 3q29.

## SOURCE

CPN reg (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of CPN reg 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-18969 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

CPN reg (C-20) is recommended for detection of carboxypeptidase N regulatory subunit (CPN reg) 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).

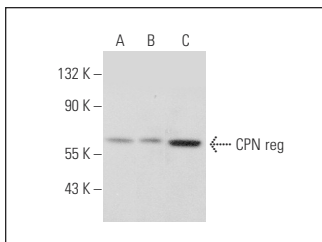
Suitable for use as control antibody for CPN reg siRNA (h): sc-40427, CPN reg shRNA Plasmid (h): sc-40427-SH and CPN reg shRNA (h) Lentiviral Particles: sc-40427-V.

Positive Controls: Jurkat whole cell lysate: sc-2204, HeLa whole cell lysate: sc-2200 or human tonsil tissue extract: sc-364263.

## 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



CPN reg (C-20): sc-18969. Western blot analysis of CPN reg expression in human tonsil tissue extract (A) and HeLa (B) and Jurkat (C) whole cell lysates.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.