

CPE (h2): 293T Lysate: sc-116451

BACKGROUND

Carboxypeptidase N (arginine carboxypeptidase or CPN) cleaves basic amino acid residues from the C-terminus 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 kinase-1 and anaphylatoxin inactivator. CPN is a tetrameric complex consisting of two identical regulatory subunits (CPN reg) and two identical catalytic subunits (CPN cat). CPN reg is a member of the leucine-rich repeat family of proteins and CPN cat is a member of the regulatory B-type carboxypeptidase group. Carboxypeptidase E (CPE) is important for removing any remaining C-terminal Arg or Lys after initial endoprotease cleavage during prohormone processing. CPE is also crucial in proinsulin processing, and required for normal-sized photoreceptor synaptic terminal and normal signal transmission to the inner retina.

REFERENCES

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4. Marzban, L., Soukhatcheva, G. and Verchere, C.B. 2005. Role of carboxypeptidase E in processing of pro-islet amyloid polypeptide in β cells. *Endocrinology* 146: 1808-1817.
5. Lou, H., Kim, S.K., Zaitsev, E., Snell, C.R., Lu, B. and Loh, Y.P. 2005. Sorting and activity-dependent secretion of BDNF require interaction of a specific motif with the sorting receptor carboxy-peptidase E. *Neuron* 45: 245-255.

CHROMOSOMAL LOCATION

Genetic locus: CPE (human) mapping to 4q32.3.

PRODUCT

CPE (h2): 293T Lysate represents a lysate of human CPE transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

CPE (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive CPE antibodies. Recommended use: 10-20 μ l per lane.

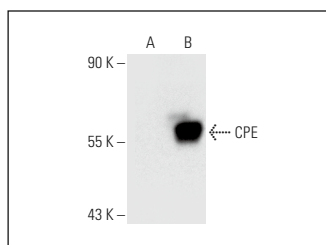
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

CPE (H-6): sc-393760 is recommended as a positive control antibody for Western Blot analysis of enhanced human CPE expression in CPE transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



CPE (H-6): sc-393760. Western blot analysis of CPE expression in non-transfected: sc-117752 (A) and human CPE transfected: sc-116451 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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 for detailed protocols and support products.