

CNDP2 (K-18): sc-82564

BACKGROUND

CNDP2 is a cytosolic, non-specific dipeptidase that belongs to the peptidase M20A family of proteins. CNDP2 is a secreted peptidase homologous to M20 peptidases. CNDP2 is expressed by all adult and fetal tissue, however, an isoform lacking exons 3 and 4 was expressed in all fetal tissue, but only in adult liver. In human hepatocellular carcinoma (HCC) cells, this isoform (also referred to as CPGL-B, carboxypeptidase of glutamate like-B) is frequently underexpressed. This underexpression shows a significant correlation with HCC venous invasion and tumor microsatellite formations. Overexpression of CPGL-B in hepatocellular carcinoma cells leads to significant inhibition of HC cell viability, colony formation, cell invasiveness and tumor formation.

REFERENCES

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2. Parkin, B.H. 1981. The evidential value of peptidase A as a semen typing system. *J. Forensic Sci.* 26: 398-404.
3. Zhang, P., Chan, D.W., Zhu, Y., Li, J.J., Ng, I.O., Wan, D. and Gu, J. 2006. Identification of carboxypeptidase of glutamate like-B as a candidate suppressor in cell growth and metastasis in human hepatocellular carcinoma. *Clin. Cancer Res.* 12: 6617-6625.
4. Wanic, K., Placha, G., Dunn, J., Smiles, A., Warram, J.H. and Krolewski, A.S. 2008. Exclusion of polymorphisms in carnosinase genes (CNDP1 and CNDP2) as a cause of diabetic nephropathy in type 1 diabetes: results of large case-control and follow-up studies. *Diabetes* 57: 2547-2551.
5. Otani, H., Okumura, A., Nagai, K. and Okumura, N. 2008. Colocalization of a carnosine-splitting enzyme, tissue carnosinase (CN2)/cytosolic non-specific dipeptidase 2 (CNDP2), with histidine decarboxylase in the tuberomammillary nucleus of the hypothalamus. *Neurosci. Lett.* 445: 166-169.

CHROMOSOMAL LOCATION

Genetic locus: CNDP2 (human) mapping to 18q22.3; Cndp2 (mouse) mapping to 18 E4.

SOURCE

CNDP2 (K-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CNDP2 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-82564 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.

APPLICATIONS

CNDP2 (K-18) is recommended for detection of CNDP2 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).

CNDP2 (K-18) is also recommended for detection of CNDP2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CNDP2 siRNA (h): sc-72935, CNDP2 siRNA (m): sc-72936, CNDP2 shRNA Plasmid (h): sc-72935-SH, CNDP2 shRNA Plasmid (m): sc-72936-SH, CNDP2 shRNA (h) Lentiviral Particles: sc-72935-V and CNDP2 shRNA (m) Lentiviral Particles: sc-72936-V.

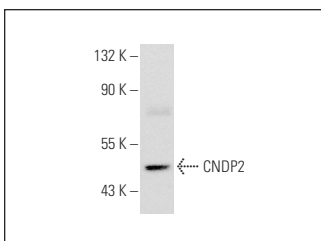
Molecular Weight of CNDP2: 53 kDa.

Positive Controls: mouse brain extract: sc-2253.

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



CNDP2 (K-18): sc-82564. Western blot analysis of CNDP2 expression in mouse brain tissue extract.

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.