**BACKGROUND**

Serum carnosinase, also known as CNDP1 (carnosine dipeptidase 1), CN1 or CPGL2, is a 507 amino acid protein that is secreted into central nervous system (CNS) tissue and is a member of the peptidase M20A family. Existing as a homodimer, serum carnosinase uses zinc as a cofactor to catalyze the hydrolysis of β-Ala-I-His and Xaa-I-His dipeptides, including carnosine, thereby playing a role in glucose metabolism. Serum carnosinase functions as an optimal pH of 8.5 and contains a varying number of trinucleotide (CTG) repeats that control its enzymatic activity. Polymorphisms in the serum carnosinase gene are associated with homocarnosinosis, as well as with diabetic nephropathy in type 1 diabetes. The gene encoding serum carnosinase maps to human chromosome 18, which houses over 300 protein-coding genes and contains nearly 76 million bases.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: CNDP1 (human) mapping to 18q22.3; Cndp1 (mouse) mapping to 18 E4.

**SOURCE**

serum carnosinase (E-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of serum carnosinase of human origin.

**PRODUCT**

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-79722 P (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

**APPLICATIONS**

serum carnosinase (E-14) is recommended for detection of serum carnosinase 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).

serum carnosinase (E-14) is also recommended for detection of serum carnosinase in additional species, including bovine and porcine.

**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-203 (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**

**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.