Recombinant Human CNDP1 Protein (His Tag)

Catalog Number: PKSH031891

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

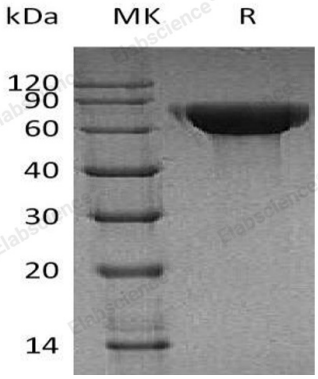
Description

Species	Human
Source	HEK293 Cells-derived Human CNDP1 protein Ser27-His507, with an C-terminal His
Calculated MW	55.3 kDa
Observed MW	60-65 kDa
Accession	NP_116038.4
Bio-activity	Measured by its ability to cleave carnosine (β-Ala-L-His) in a two-step assay. The specific activity is > 250 pmoles/min/μg.

Properties

Purity	> 90 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 90 % as determined by reducing SDS-PAGE.

Background

CNDP1; also known as carnosine dipeptidase 1; glutamate carboxypeptidase-like protein 2 (CPGL-2) or carnosinase 1 (CN1); is a member of the M20 metalloprotease family. The CNDP1 gene contains trinucleotide (CTG) repeat length polymorphism in the coding region; which has been demonstrated to be associated with susceptibility to developing diabetic nephropathy; for carnosine protection against the adverse effects of high glucose levels on renal cells. In humans; CNDP1 is secreted from the liver into the serum. In other mammals; including rodents; CNDP1 is expressed exclusively within the kidney and lacks a signal peptide. CNDP1 protein is a secreted homodimeric dipeptidase that specifically hydrolyzes L-carnosine (β-alanyl-L-histidine); and is identified as human carnosinase expressed in the brain. CNDP1 has been associated with diabetic nephropathy in Europeans and European Americans; but not African-Americans. It was identified and confirmed as a risk factor; were cross-sectional and mostly in patients with type 2 diabetes. The polymorphisms of CNDP1 can be excluded as a risk factor for nephropathy in type 1 diabetes. In addition; CNDP1 is also suggested to be implicated in the actions of neuroprotection and neurotransmiting.

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