

DESCRIPTION

Source *E. coli*-derived human CART protein
Ala37-Leu116
Accession # Q16568.1

N-terminal Sequence Analysis Ala37

Predicted Molecular Mass 9 kDa

SPECIFICATIONS

SDS-PAGE 8-10 kDa, reducing conditions.

Activity Bioassay data are not available.

Endotoxin Level <0.10 EU per 1 µg of the protein by the LAL method.

Purity >95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

Formulation Lyophilized from a 0.2 µm filtered solution in HCl. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution Reconstitute at 500 µg/mL in 4 mM HCl.

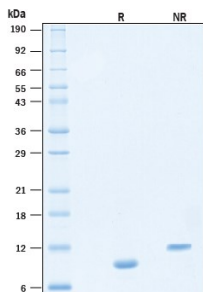
Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

DATA

SDS-PAGE



Recombinant Human CART Protein SDS-PAGE. 2 µg/lane of Recombinant Human CART Protein (Catalog # 10974-CO) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 8-10 kDa under reducing conditions.

BACKGROUND

Cocaine and amphetamine regulated transcript, also known as CART, is a neuropeptide protein encoded in human by the CARPT gene (1, 2) and is expressed in brain regions associated with reward such as the nucleus accumbens, also expressed in retinal cells, in pituitary glands, adrenal medulla and pancreas (3, 4). CART peptides can function as neurotransmitters and hormones, promote neuronal development, and are involved in regulating many processes, including food intake, maintenance of body weight, reward and addiction, stress response, psychostimulant effects, and endocrine function (5-7). CART production is up-regulated by CREB (8) a protein thought to be involved with the development of drug addiction, thus CART may be an important therapeutic target in the treatment of stimulant abuse (9). More recently, studies show that CART also has a wide variety of functions including bone remodeling, depression, anxiety, learning and memory as well as physiological processes such osmoregulation and blood pressure (10, 11). CART treatment promotes neuronal development and survival *in vitro* and *in vivo* (12-14).

References:

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