# Recombinant Human CART/CARTPT Protein (Fc Tag)

**Catalog Number: PKSH030682**

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

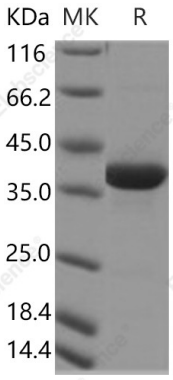
## Description

| | |
|---|---|
| **Species** | Human |
| **Source** | HEK293 Cells-derived Human CART/CARTPT protein Met 1-Leu116, with an C-terminal mFc |
| **Calculated MW** | 13 kDa |
| **Observed MW** | 37 kDa |
| **Accession** | NP_004282.1 |
| **Bio-activity** | Not validated for activity |

## Properties

| | |
|---|---|
| **Purity** | > 95% 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°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C 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<br>Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.<br>Please refer to the specific buffer information in the printed manual. |
| **Reconstitution** | Please refer to the printed manual for detailed information. |

## Data




> 95 % as determined by reducing SDS-PAGE.

## Background

In RNAseq data from human islet donors, CARTPT expression levels correlated with insulin, exocytosis genes and key beta-cell transcription factors. Insufficient insulin release and hyperglucagonaemia are culprits in type 2 diabetes. Cocaine- and amphetamine-regulated transcript (CART, encoded by Cartpt) affects islet hormone secretion and beta cell survival in vitro in rats, and Cart (-/-) mice have diminished insulin secretion. Established a potential role for cocaine and amphetamine regulated transcript (CARTPT) in dominant follicle selection in cattle. CARTPT expression is elevated in subordinate versus dominant follicles, and treatment with the mature form of the CARTPT peptide ( CART) decreases follicle-stimulating hormone (FSH)-stimulated granulosa cell estradiol production in vitro and follicular fluid estradiol and granulosa cell CYP19A1 mRNA in vivo.


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