# Recombinant Human Carboxypeptidase A2/CPA2 Protein (His Tag)

**Catalog Number: PKSH031569**

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

## Description

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|---|---|
| **Species** | Human |
| **Source** | HEK293 Cells-derived Human Carboxypeptidase A2/CPA2 protein Met 1-Tyr 417, with an C-terminal His |
| **Calculated MW** | 46 kDa |
| **Observed MW** | 46 kDa |
| **Accession** | NP_001860.2 |
| **Bio-activity** | Measured by its ability to cleave a colorimetric peptide substrate, N-acetyl-Phe-Thiaphe-OH (N-Ac-PSP, Peptide International's Catalog# STP-3621-PI), in the presence of 5, 5'Dithio-bis (2-nitrobenzoic acid) (DTNB), as measured using the wavelength at 405 nm and the extinction coefficient of 13, 260 M-1 cm-The specific activity is > 4, 000 pmoles/min/μg. |

## Properties

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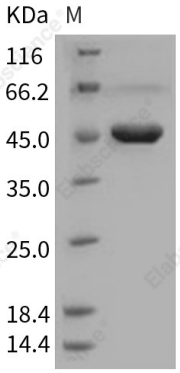
| **Purity** | > 90% as determined by reducing SDS-PAGE. |
| **Endotoxin** | < 1.0 EU per μg of the protein as determined by the LAL method. |
| **Storage** | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C 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 25 mM Tris, 0.15 mM NaCl, 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




> 90 % as determined by reducing SDS-PAGE.

## Background

Carboxypeptidase A2 ( CPA2 ) is a secreted pancreatic procarboxy -peptidase, and cleaves the C-terminal amide or ester bond of peptides that have a free C-terminal carboxyl group. The hydrolytic action of CPA2 was identified with a preference towards long substrates with aromatic amino acids in their C-terminal end, particularly tryptophan. CPA2 comprises a signal peptide, a pro region and a mature chain, and can be activated after cleavage of the pro peptide. Three different forms of human pancreatic procarboxypeptidase A have been isolated, and the A1 and A2 forms are always secreted as monomeric proteins with different biochemical properties.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