

# Cynomolgus DPP4 / DPPIV / CD26 Protein



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Biological Solution Specialist

Catalog Number: 90180-CNCH

## General Information

### Gene Name Synonym:

DPP4

### Protein Construction:

A DNA sequence encoding the cynomolgus DPP4 (F6VRB0) (Asp34-Pro766) was expressed with two additional amino acids (Gly & Pro) at the N-terminus.

**Source:** Cynomolgus

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 95 % as determined by SDS-PAGE

### Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Gly

### Molecular Mass:

The recombinant cynomolgus DPP4 is a disulfide-linked homodimer. The reduced monomer comprises 735 amino acids and has a calculated molecular mass of 84.6 KDa. The apparent molecular mass of the protein is approximately 92-102 KDa in SDS-PAGE.

### Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

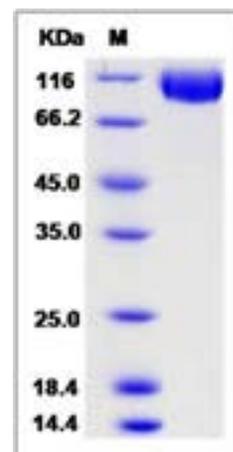
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Dipeptidyl peptidase-4 (DPP4) or adenosine deaminase complexing protein 2 (ADCP 2) or T-cell activation antigen CD26 is a serine exopeptidase belonging to the S9B protein family that cleaves X-proline dipeptides from the N-terminus of polypeptides, such as chemokines, neuropeptides, and peptide hormones. The enzyme is a type II transmembrane glycoprotein, expressed on the surface of many cell types. It is also present in serum and other body fluids in a truncated form (sCD26/DPPIV). The soluble CD26 (sCD26) as a tumour marker for the detection of colorectal cancer (CRC) and advanced adenomas. As both a regulatory enzyme and a signalling factor, DPP4 has been evaluated and described in many studies. DPP4 inhibition results in increased blood concentration of the incretin hormones glucagon-like peptide-1 (GLP-1) and gastric inhibitory polypeptide (GIP). This causes an increase in glucose-dependent stimulation, resulting in a lowering of blood glucose levels. Recent studies have shown that DPP4 inhibitors can induce a significant reduction in glycosylated haemoglobin (HbA(1c)) levels, either as monotherapy or as a combination with other antidiabetic agents. Research has also demonstrated that DPP4 inhibitors portray a very low risk of hypoglycaemia development, and are a new pharmacological class of drugs for treating Type 2 diabetes.

## References

1. Doupis J, *et al.* (2008) DPP4 inhibitors: a new approach in diabetes treatment. *Adv Ther.* 25(7): 627-43.
2. Havre PA, *et al.* (2008) The role of CD26/dipeptidyl peptidase IV in cancer. *Front Biosci.* 13: 1634-45.
3. De Chiara L, *et al.* (2009) Soluble CD26 levels and its association to epidemiologic parameters in a sample population. *Dis Markers.* 7(6): 311-6.

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