# Data Sheet (Cat.No.TMPY-03952)

TargetMol

## DPP4/CD26 Protein, Cynomolgus, Recombinant (hFc)

### General Information

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| Synonyms: | dipeptidylpeptidase 4 |
| Protein Construction: | A DNA sequence encoding the cynomolgus DPP4 (F6VRB0) (Asp34-Pro766) was expressed with the Fc region of human IgG1 at the N-terminus. Predicted N terminal: Glu |
| Species: | Cynomolgus |
| Expression Host: | HEK293 Cells |
| Accession: | F6VRB0 |
| Molecular Weight: | 112.9 kDa (predicted); 113 kDa (reducing conditions) |

### QC Testing

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| Biological Activity: | Measured by its ability to cleave the fluorogenic peptide substrate, Gly-Pro-AMC(GP-AMC). The specific activity is > 3, 000 pmoles/min/μg. |
| Purity: | > 90 % as determined by SDS-PAGE |
| Endotoxin: | < 1.0 EU/μg of the protein as determined by the LAL method. |
| Formulation: | Lyophilized from a solution filtered through a 0.22 μm filter, containing 25 mM MES, 0.7 M NaCl, pH 4. 9. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization. |

### Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

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.

Reference

Doupis J, et al. (2008) DPP4 inhibitors: a new approach in diabetes treatment. Adv Ther. 25(7): 627-43.
HAvre PA, et al. (2008) The role of CD26/dipeptidyl peptidase IV in cancer. Front Biosci. 13: 1634-45.
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.
Matteucci E, et al. (2009) Dipeptidyl peptidase-4 (CD26): knowing the function before inhibiting the enzyme. Curr Med Chem. 16(23): 2943-51.



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