

AR09019PU-N**Recombinant human CD26 (DPP4) (aa 39-766), His-tagged****Alternate names:**

ADABP, ADCP2, Adenosine deaminase complexing protein 2, DPP IV, Dipeptidyl peptidase 4, Dipeptidyl peptidase IV, T-cell activation antigen CD26, TP103

Quantity:

100 µg

Concentration:

0.5 mg/ml

Background:

DPP4, dipeptidyl peptidase-4 is a complex enzyme expressed on the surface of most cell types and is a serine exopeptidase that cleaves x-proline dipeptides from the N-terminus of polypeptides. DPP4 protein is associated with intracellular signal transduction, apoptosis and plays an important role in tumor biology. There are at least 63 substrates which can bind specifically to DPP4 enzyme including growth factors, chemokines, neuro peptides. Furthermore, DPP4 plays a major role in glucose metabolism by cleaving incretins such as glucose-dependent insulinotropic polypeptide (GIP) and glucagon-like peptide-1 (GLP-1).

Uniprot ID:[P27487](#)**NCBI:**[NP_001926.2](#)**GeneID:**[1803](#)**Species:**

Human

Source:

High-5 Insect cells

Format:**State:** Liquid purified protein**Purity:** >95% by SDS PAGE**Buffer System:** 20 mM Tris-HCl pH 8.0, 100 mM NaCl, 1 mM EDTA, 10% glycerol**Endotoxin Level:** < 1.0 EU per 1 microgram of protein (determined by LAL method)**Description:**

Recombinant human DPP4 protein was expressed with c-terminal His-tag in high-5 cells using baculovirus expression system and purified by using conventional chromatography techniques.

AA Sequence:

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ADP-R KTYTLTDYLK NTYRLKLYSL RWISDHELYL KQENNILVFN AEYGNSSVFL ENSTFDEFHG  
SINDYSISPD GQFILLEINY VKQWRHSYTA SYDIYDLNKR QLITEERIPN NTQVWTWSPV  
GHKLAYVWNN DIYVKIEPNL PSYRITWTGK EDIIYNGITD WVYEEVFSA YSALWWSPNG  
TFLAYAQFND TEVPLIEYSF YSDESLQYPK TVRVYPYKAG AVNPTVKFFV VNTDSLSSVT  
NATSIQITAP ASMLIGDHYL CDVTWATQER ISLQWLRRIQ NYSVMDICDY DESSGRWNCL  
VARQHIE MST TGWVGRFRPS EPHFTLDGNS FYKIISNEEG YRHICYFQID KKDCTFITKG  
TWEVIGIEAL TSDYLYYISN EYKGMPPGGRN LYKIQLSDYT KVTCLSCELN PERCQYYSVS  
FSKEAKYYQL RCSGPGLPLY TLHSSVNDKG LRVLEDNSAL DKMLQNVQMP SKKLDFFIILN  
ETKFWYQMIL PPHFDKSKKY PLLLDVYAGP CSQKADTVFR LNWATYLAST ENIIVASFDG  
RSGSYQGDKI MHAINRRLGT FEVEDQIEAA RQFSKMGFVD NKRIAIWGS YGGYVTSVMVL  
GSGSGVFKCG IAVAPVSRWE YYDSVYTERY MGLPTPEDNL DHYRNSTVMS RAENFKQVEY  
LLIHGTADDN VHFQQAQIS KALVDVGVDF QAMWYTDDEH GIASSTAQH IYTHMSHF I K QCFSLP-  
SGRLVPRGSHHHHHH
```

Biological Activity: Approximately > 50 Unit/mg.

One unit will hydrolyze 1 micromole of p-nitroaniline per minute at pH 8.0 at 37°C using 1mM of Gly-Pro p-nitroanilide as a substrate.

Assay procedure and results:

- Reaction buffer: 20mM Tris pH 8.0, 0.1M NaCl, 1mM EDTA
 - Total reaction volume: 100 ul
 - Reaction temperature: 37°C
 - 1. Add the reaction buffer to each well
 - 2. Add the 10 ul of 10 mM substrate (Gly-Pro p-nitroanilide) to each well
 - 3. Add the enzyme (DPP-4) diluent to each well
 - 4. Incubate the 96 well plate at 37°C.
 - 5. Read the optical density at 405 nm.
- (see "Pictures" below)

Specific Activity: > 50 unit/mg

Molecular weight: 86.4 kDa (746aa), confirmed by MALDI-TOF

Storage:

Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C or -70°C for longer.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.

General Readings:

Pratley RE and Salsali A. (2007) *Curr Med Res Opin.* 23(4):919-31.

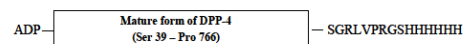
Rosenstock J. and Zinman B. (2007) *Curr Opin Endocrinol Diabetes* 60(11):1454-70.

Barnett A. (2006). *J.Clin. Pract.* 60(11):1454-70.

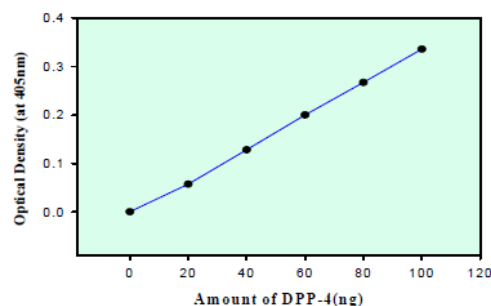
Pictures:

Recombinant human CD26, His-tagged

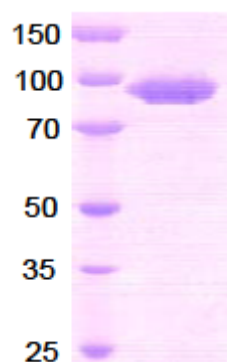
Sequences:

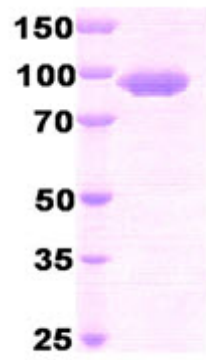


CD26: Optical density was measured at 405 nm after incubating enzyme solution with 1 mM of p-nitroanilid as a substrate.



CD26 (DPP4): 10% SDS-PAGE (2 ug)





10% SDS-PAGE (2ug)