

# Dipeptidylpeptidase IV, Human Recombinant

**CATALOG #:** 4710-10 10 µg  
4710-50 50 µg  
4710-1000 1 mg

**LOT #:** \_\_\_\_\_

**SYNONYMS:** CD26, ADABP, ADCP2, DPPIV, TP103, DPP4, Dipeptidyl peptidase 4, Dipeptidyl peptidase IV, DPP IV, T-cell activation antigen CD26, Adenosine deaminase complexing protein 2, CD26 antigen.

**SOURCE:** High-5 cells

**PURITY:** > 95 % by SDS-PAGE  
Endotoxin level is < 0.1 ng per µg.

**MOL. WEIGHT:** 86.4 kDa

**FORM:** 0.5 mg/ml; Sterile filtered solution containing 20 mM Tris-HCl buffer pH 8.0, 100 mM NaCl, 1 mM EDTA and 10 % glycerol.

**STORAGE CONDITIONS:** Stable at 4°C for 4 weeks; Long term add carrier protein (0.1% HAS or BSA), aliquot and store desiccated at -20°C. Avoid freeze/thaw cycles.

## DESCRIPTION:

DPP4 is a serine exopeptidase and complex enzyme that is expressed on the surface of most cell types as an intrinsic membrane glycoprotein that cleaves X-proline dipeptides from the N-terminus of polypeptides and plays a role in t-cell activation. DPP4 is associated with intracellular signal transduction, apoptosis and involved 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). DPP4 Human Recombinant is a single, glycosylated polypeptide chain containing 746 amino acids (aa 39-766) with a C-terminal His-tag and is purified using conventional chromatography techniques.

## AMINO ACID SEQUENCE:

ADP-  
SRKTYTLTDYLNKNTYRLKLYSLRWISDHEYLYKQENNILVFNAEYGNSSVFLENSTFDEFHGHSINDYSIS  
PDGQFILLEYNVYKQWRHSYASYDIYDLNKRQLITERIPNNTQWVTWSPVGHKLAYVWNNDIYVKIEP  
NLPYSYRITWTGKEDIYNGITDWWYEEVFSAYSALWWSPNGTFLAYAQFNDETEVPLIEYSFYSDES LQY  
PKTVRVYPYKAGAVNPTVKFFVNTDLSLSSVNTATS IQITAPASMLIGDHYLCDDVTWATQERISLQWLR  
IQNYSVMDICDYDESSGRWNC LVARQHIE MSTTGWVGRFRPSEPHFTLDGNSFYKIIISNEEGYRHICYFQ  
IDKKDCTFITKGTWEVIGIEALTS DYLYIISNEYKGMPPGRNLYKIQLSDYTKVTCLSCELNPERCQYYS  
VSFSKEARYYQLRCSGGLPLYTLHSSVNDKGLRVLEDNSALDKMLQNVQMP SKKLD F I I LNETKFWYQM  
LLP PPHFDKSKKYPLLLD VYAGPCSQKADTVFRLN WATYLASTENIIVASFDGRGSGYQGDKIMHAINRRL  
GTFEVEDQIEAARQFSKMGFVNDNKRIAIWGSYGGYVTSMLVLSGSGVFKCGI AVAPVSRWEY YDSVYTE  
RYMGLPTPEDNLDHYRNSTVMSRAENFKQVEYLLIHGTADDNVHFQQSAQISKALVDVGVDFQAMWYTD  
DHGIASSTAHOHIYTHMSHFIKOCFSLP-SGR LVP RGHSHHHHHH

**BIOLOGICAL ACTIVITY:** >20 Units/mg.

Unit Definition: One unit will hydrolyze 1 mmole of p-nitroaniline per minute at pH8.0 at 37°C using 1mM of Gly-Pro p-nitroanilide as a substrate.

## Assay Protocol:

Reaction buffer: 20 mM Tris pH 8.0, 0.1 M NaCl, 1 mM EDTA; Total reaction volume: 100 ul.

1. Add the reaction buffer to each well.
2. Add the 10 ul of 10mM 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 kinetically at 405 nm.
6. Activity can be calculated using a standard curve of pNA.

## Related Products:

- MMP family enzymes, human recombinant
- MMP family Antibody
- MMP-1 Inhibitor screening kit
- MMP-3 inhibitor screening kit
- MMP FRET Substrate
- Elastase inhibitor screening kit
- Elastase Inhibitor, SPCK
- GM6001
- GLP-1 pAb
- DPPIV, human placenta
- DPPIV Inhibitor, K 579
- DPPIV Inhibitor, NVP DPP728
- DPP4 Activity Assay Kit
- DPP4 Inhibitor Screening Kit
- Sitagliptin

**FOR RESEARCH USE ONLY! Not to be used in human subjects!**