Creative Enzymes®

Native Porcine Dipeptidyl Peptidase IV

Cat. No. NATE-0203

Lot. No. (See product label)

Introduction

Description	Native DPPIV is a ubiquitous type II transmembrane glycoprotein and a serine protease of the S9 prolyl-oligopeptidase family. In vivo, it is synthesized with a signal peptide, which functions as the membrane anchoring domain. There is an 88% sequence homology between the human and porcine kidney enzymes. Both exist as homodimers with a subunit molecular weight of ~30 kDa. The high mannose 100 kDa DPPIV precursor is processed in the Golgi to yield a 124 kDa heavily N-and O-linked mature glycoprotein. It is then sorted to the apical membrane through the concerted action of both N-and O-linked glycans and its association with lipid microdomains. The porcine enzyme contains 18.3% carbohydrates, which the glycan composition is 0.9% fucose, 3.4% mannose, 5.1% galactose, 8.2% glucosamine, and 0.7% sialic acid. DPPIV is highly expressed on endothelial cells, epithelial cells, and lymphocytes. It is also present in plasma in its soluble form.
Synonyms	EC 3.4.14.5; 54249-88-6; DPPIV; DPP4; dipeptidyl aminopeptidase IV; Xaa-Pro-dipeptidyl-aminopeptidase; Gly-Pro naphthylamidase; postproline dipeptidyl aminopeptidase IV; lymphocyte antigen CD26; glycoprotein GP110; dipeptidyl peptidase IV; glycylproline aminopeptidase; glycylproline aminopeptidase; X-prolyl dipeptidyl aminopeptidase; pep X; leukocyte antigen CD26; glycylprolyl dipeptidylaminopeptidase; dipeptidyl-peptide hydrolase; glycylprolyl aminopeptidase; dipeptidyl-aminopeptidase IV; DPP IV/CD26; amino acyl-prolyl dipeptidyl aminopeptidase; T cell triggering molecule Tp103; X-PDAP

Product Information

Species	Porcine
Source	Porcine Kidney
Form	Liquid. In 20 mM Tris-HCl, 5 mM $CaCl_2$, 1 μM $ZnCl_2$, 0.05% NaN_3, pH 8.0.
EC Number	EC 3.4.14.5
CAS No.	54249-88-6
Purity	>94% by SDS-PAGE
Activity	1.0 U/mg; Specific Activity >40 U/mg protein
Unit Definition	One unit is defined as the amount of enzyme that will hydrolyze 1.0 μmole 7-(Gly-Pro)-amino-4-methylcoumarinamide per min at 37°C, pH 8.5.

Storage and Shipping Information

Storage	at -70°C, Avoid freeze/thaw