

PEPD Protein, Human

Cat. No.:	HY-P70992
Synonyms:	Xaa-Pro dipeptidase; Imidodipeptidase; PeptidaseD; Prolinedipeptidase; PRD; PEPD.
Species:	Human
Source:	E. coli
Accession:	AAH28295.1 (A2-K493)
Gene ID:	5184
Molecular Weight:	54-60 kDa

PROPERTIES

AA Sequence

AAATGPSFWL	GNETLKVPLA	LFALNRQRLC	ERLRKNPAVQ
AGSIVVLQGG	EETQRYCTDT	GVLFRQESFF	HWAFGVTEPG
CYGVIDVDTG	KSTLFVPRLP	ASHATWMGKI	HSKEHFKEKY
AVDDVQYVDE	IASVLT SQKP	SVLLTLRGVN	TDSGSVCREA
SFDGISKFEV	NNTILHPEIV	ECRVFKTDME	LEVLR YTNKI
SSEAHREVMK	AVKVG MKEYE	LES LFEHYCY	SRGGMRHSSY
TCICGSGENS	AVLHYGHAGA	PNDRTIQNGD	MCLFDMGGEY
YCFASDITCS	FPANGKFTAD	QKAVYEAVLR	SSRAVMGAMK
PGVWVWPD MHR	LADRIHLEEL	AHMGILSGSV	DAMVQAHLGA
VFMPHGLGHF	LGIDVHDVGG	YPEGVERIDE	PGLRSLRTAR
HLQPGMVLT V	EPGIYFIDHL	LDEALADPAR	ASFFNREVLQ
RFRGF GGVRI	EEDVVVTDSG	IELLTCVPRT	VEEIEACMAG
CDKAFTPFSG	PK		

Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Solution.
Formulation	Supplied as a 0.2 µm filtered solution of 25 mM Tris-HCl, 100 mM Glycine, 10% Glycerol, pH 8.5 or 50 mM Tris-HCl, 300 mM NaCl, 10% Glycerol, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	N/A
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice

DESCRIPTION

Background

PEPD, a member of the peptidase family, is a dipeptidase which hydrolyze dipeptides with proline or hydroxyproline at the carboxy terminus. The preferred dipeptide substrate is Gly-Pro, but other Xaa-Pro dipeptides, such as Ala-Pro, Met-Pro, Phe-Pro, Val-Pro and Leu-Pro, can be cleaved by PEPD. It plays an important role in collagen metabolism because the high level of iminoacids in collagen. PEPD modulates expression of interferon α/β receptor IFNAR1. PEPD directly binds to p53 in the nucleus and cytoplasm and suppresses both transcription-dependent and transcription-independent activities of p53, which is essential for cell survival and tumor growth. In addition, PEPD stimulates proliferation and migration of fibroblasts via activation of the EGFR-downstream PI3K/Akt/mTOR signaling pathway, which also stimulates the expression of β 1-integrin and IGF-1 receptors and proteins downstream to these receptors such as FAK, Grb2, and ERK1/2^{[1][2][3][4]}.

Caution: Product has not been fully validated for medical applications. For research use only.

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