



LD Biopharma, Inc.
6042 Cornerstone CT. W. Suite E
San Diego, CA 92121
Tel: 858-876-8266
Fax: 858-638-0488
<http://www.ldbiopharma.com>

- PRODUCT DATA SHEET -

Name of Product: Recombinant Human XPNPEP1 Protein
Catalog Number: hRP-0814
Manufacturer: LD Biopharma, Inc.

Introduction

Human xaa-pro aminopeptidase 1 (XPNPEP1) encodes the cytosolic form of a metalloaminopeptidase that catalyzes the cleavage of the N-terminal amino acid adjacent to a proline residue. The gene product may play a role in degradation and maturation of tachykinins, neuropeptides, and peptide hormones. Alternative splicing results in multiple transcript variants. This gene SNP mapping indicated that XPNPEP1 are associated with both late-onset Alzheimer disease and angiotensin-converting enzyme inhibitor-induced cough.

Full-length human XPNPEP1 (666 aa) gene was constructed with 19 aa N-terminal T7 tag and expressed in E.coli as inclusion bodies. The final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

Gene Symbol: XPNPEP1 (APP1; XPNPEP; XPNPEPL;XPNPEPL1)
Accession Number: NP_065116
Species: Human
Size: 50 µg / Vial
Composition: 0.5 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, arginine, DTT and Glycerol.
Storage: In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

Cilia La Corte,A.L., et al., *The bradykinin-degrading aminopeptidase P is increased in women taking the oral contraceptive pill.* J Renin Angiotensin Aldosterone Syst 9 (4), 221-225 (2008).

Li,X., et al., *Structure of human cytosolic X-prolyl aminopeptidase: a double Mn(II)-*



LD Biopharma, Inc.
6042 Cornerstone CT. W. Suite E
San Diego, CA 92121
Tel: 858-876-8266
Fax: 858-638-0488
<http://www.ldbiopharma.com>

dependent dimeric enzyme with a novel three-domain subunit. J. Biol. Chem. 283 (33), 22858-22866 (2008).

Vanhoof, G., et al., *Kininase activity in human platelets: cleavage of the Arg1-Pro2 bond of bradykinin by aminopeptidase P.* Biochem. Pharmacol. 44 (3), 479-487 (1992).

Applications

1. May be used for in vitro peptide hormones modification regulation study with intracellular protein delivery of this protein.
2. As soluble / native protein, may be used as enzymatic substrate protein for kinase and ubiquitin assay development.
3. May be used for mapping XPNPEP1 protein-protein interaction.
4. As potential diagnostic biomarker for both late-onset Alzheimer disease and angiotensin-converting enzyme related diseases.

Quality Control

1. Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGEFGSTSMASRKPPRVRVNHQDFQLRNLR I IEPNEVTHSGDTGVETDGRMP
PKVTSELRLRQLRQAMRNSEYVTEPIQAYIIPSGDAHQSEYIAPCDCRRAFVSGFDGSAGTAIIT
EEHAAMWTDGRYFLQAAKQMDSNWTLMKMGLKDTPTQEDWLVSVLPEGSRVGVDP LI IPTDYWK
KMAKVLRSAGHHLI PVKENLVDKIWTDRPERPCKPLLTGLDYGTSWKDKVADLRLKMAERNV
MWFVVTALDEIAWLFNLRGSDVEHNPVFFSYA I IGLETIMLFIDGDRIDAPSVKEHLLLDLGL
AEYRIQVHPYKSI LSELKALCADLSPREKVWVSDKASYAVSETIPKDHRCMPYTPICIAKAVK
NSAESEGMRRAHIKDAVALCELFNWLEKEVPKGGVTEISAADKAEFFRRQQADFVDLSFPTISS
TGPNGAI IHYAPVPETNRTL SLDEVYLLIDSGAQYKDGTTDVTRTMHFGTPTAYEKECFTYVLKG
HIAVSAAVFPTGTKGHL LDFSARSALWDSGLDYLHGTGHGVSFLNVHEGPCGISYKTF SDEPL
EAGMIVTDEPGYYEDGAFGIRIENVVLVVPVKTKYNFNRRGSLTFEPLTLVPIQTKMIDVDSL
T DKECDWLNNYHLTCRDVIGKELQKQGRQEALWLIRETQPI SKQH