

Datasheet for ABIN3114179

## PHEX Protein (AA 1-749) (Strep Tag)



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### Overview

Quantity:	250 µg
Target:	PHEX
Protein Characteristics:	AA 1-749
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PHEX protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

### Product Details

Brand:	AliCE®
Sequence:	<p>MEAETGSSVE TGKKANRGTR IALVVFVGGT LVLGTILFLV SQGLLSLQAK QEYCLKPECI</p> <p>EAAAAILSKV NLSVDPCDNF FRFACDGWIS NNPIPEDMPS YGVYPWLRHN VDLKLKELLE</p> <p>KSISRRRDTE AIQKAKILYS SCMNEKAIK ADAQPLLHIL RHSPFRWPVL ESNIGPEGVW</p> <p>SERKFSLQQT LATFRGQYSN SVFIRLYVSP DDKASNEHIL KLDQATLSLA VREDYLDNST</p> <p>EAKSYRDALY KFMVDTAVLL GANSSRAEHD MKSVLRLEIK IAEIMIPHEN RTSEAMYNKM</p> <p>NISELSAMIP QFDWLGYIKK VIDTRLYPHL KDISPSENVV VRVPQYFKDL FRILGSERKK</p> <p>TIANYLWVRM VYSRIPNLSR RFQYRWLEFS RVIQGTITLL PQWDKCVNFI ESALPYVVGK</p> <p>MFVDVYFQED KKEMMEELVE GVRWAFIDML EKENEWMDAG TKRKAKEKAR AVLAKVGYPE</p> <p>FIMNDTHVNE DLKAIKFSEA DYFGNVLQTR KYLAQSDFFW LRKAVPKTEW FTNPPTTVNAF</p> <p>YASTNQIRF PAGELQKPFF WGTEYPRSL YGAIGVIVGH EFTHGFDNNG RKYDKNGNLD</p> <p>PWWSTESEEEK FKEKTKCMIN QYSNYYWKKA GLNVK GKRTL GENIADNGGL REAFRAYRKW</p>

INDRRQGLEE PLLPGITFTN NQLFFLSYAH VRCNSYRPEA AREQVQIGAH SPPQFRVNGA  
ISNFEEFQKA FNCPPNSTMN RGMDSCLW

**Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**

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### Characteristics:

#### Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a **made-to-order protein** and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

The big advantage of ordering our **made-to-order proteins** in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

#### Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

#### Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

### Purification:

One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®).

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## Product Details

Purity: > 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

Grade: custom-made

## Target Details

Target: PHEX

Alternative Name: PHEX ([PHEX Products](#))

Background: Phosphate-regulating neutral endopeptidase PHEX (EC 3.4.24.-) (Metalloendopeptidase homolog PEX) (Vitamin D-resistant hypophosphatemic rickets protein) (X-linked hypophosphatemia protein) (HYP),FUNCTION: Peptidase that cleaves SIBLING (small integrin-binding ligand, N-linked glycoprotein)-derived ASARM peptides, thus regulating their biological activity (PubMed:9593714, PubMed:15664000, PubMed:18162525, PubMed:18597632). Cleaves ASARM peptides between Ser and Glu or Asp residues (PubMed:18597632). Regulates osteogenic cell differentiation and bone mineralization through the cleavage of the MEPE-derived ASARM peptide (PubMed:18597632). Promotes dentin mineralization and renal phosphate reabsorption by cleaving DMP1- and MEPE-derived ASARM peptides (PubMed:18597632, PubMed:18162525). Inhibits the cleavage of MEPE by CTSB/cathepsin B thus preventing MEPE degradation (PubMed:12220505). {ECO:0000250|UniProtKB:P70669, ECO:0000269|PubMed:12220505, ECO:0000269|PubMed:18162525, ECO:0000269|PubMed:18597632}.

Molecular Weight: 86.5 kDa

UniProt: [P78562](#)

## Application Details

Application Notes: In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Comment: ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.

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## Application Details

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Restrictions: For Research Use only

## Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol <b>Might differ depending on protein.</b>
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months