

Datasheet for ABIN3123589

Cytochrome b561 Family, Member A3 (CYB561A3) (AA 1-242) protein (Strep Tag)



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Overview

Quantity:	1 mg
Target:	Cytochrome b561 Family, Member A3 (CYB561A3)
Protein Characteristics:	AA 1-242
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	Strep Tag
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence: MASGWFYLSC MVLGSLGSMC ILFTAYWMQY WRGGFAWDGT VLMFNWHPVL MVAGMVVLYG
AASLVYRLPS SWVGPRLPWK VLHAALHLLA FTCTVVGLIA VFRFHNHSRI AHLVSLHSWL
GITTVVLFAC QWFLGFAVFL LPWASQWLRS LLKPLHVFFG ACILSLSITS VISGINEKLF
FVLKNATKPY SSLPGEAVFA NSTGLLVVAF GLLVLYVLLA SSWKRPDPGA LTDRQPLLHD RE

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.

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).

Product Details

- 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®).

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

Target Details

Target: Cytochrome b561 Family, Member A3 (CYB561A3)

Alternative Name: Cyb561a3 ([CYB561A3 Products](#))

Background: Lysosomal membrane ascorbate-dependent ferrireductase CYB561A3 (EC 7.2.1.3)
(Cytochrome b ascorbate-dependent protein 3) (Cytochrome b561 family member A3)
(Lysosomal cytochrome b) (LCytb),FUNCTION: Transmembrane reductase that uses ascorbate

Target Details

as an electron donor in the cytoplasm and transfers electrons across membranes to reduce iron cations Fe(3+) into Fe(2+) in the lumen of the late endosome and lysosome (PubMed:16911521). Reduced iron can then be extruded from the late endosome and lysosome to the cytoplasm by divalent metal-specific transporters (Probable). It is therefore most probably involved in endosomal and lysosomal cellular iron homeostasis (Probable). {ECO:0000269|PubMed:16911521, ECO:0000305|PubMed:16911521}.

Molecular Weight: 27.1 kDa

UniProt: [Q6P1H1](#)

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.

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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 **Might differ depending on protein.**

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Handling

Expiry Date: 12 months