

Datasheet for ABIN3115065

## CNGA3 Protein (AA 1-694) (Strep Tag)



[Go to Product page](#)

### Overview

Quantity:	250 µg
Target:	CNGA3
Protein Characteristics:	AA 1-694
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This CNGA3 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

### Product Details

Brand:	AliCE®
Sequence:	<p>MAKINTQYSH PSRTHLKVKT SDRDLNRAEN GLSRAHSSSE ETSSVLQPGI AMETRGLADS</p> <p>GQGSFTGQGI ARLSRLIFLL RRWAARHVHH QDQGPDSFPD RFRGAELKEV SSQESNAQAN</p> <p>VGSQEPADRG RSAWPLAKCN TNTSNNTTEE KTKKKDAIV VDPSSNLYYR WLTAIALPVF</p> <p>YNWYLLICRA CFDELQSEYL MLWLVDYSA DVLYVLDVLV RARTGFLEQG LMVSDTNRLW</p> <p>QHYKTTTQFK LDVLSLVPTD LAYLKVGTY PEVRFNRLK FSRLFEFFDR TETRNYPNM</p> <p>FRIGNLVLYI LIIHWNACI YFAISKFIGE GTDSWVYPNI SIPEHGRLSR KYIYSLYWST LTLTTIGETP</p> <p>PPVKDEEYLF VVVDLVGVL IFATIVGNVG SMISNMNASR AEFQAKIDSI KQYMQFRKVT</p> <p>KDLETRVIRW FDYLWANKKT VDEKEVLKSL PDKLKAEIAI NVHLDTLKKV RIFQDCEAGL</p> <p>LVELVLKLRP TVFSPGDYIC KKGDIGKEMY IINEGKLAVV ADDGVTQFVV LSDGSYFGEI</p> <p>SILNIKGSKS GNRRTANIRS IGYSDFCLS KDDLMEALTE YPEAKKALEE KGRQILMKDN</p> <p>LIDEELARAG ADPKDLEEKV EQLGSSLDL QTRFARLLAE YNATQMKMKQ RLSQLESQVK</p>

GGGDKPLADG EVPGDATKTE DKQQ

**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.

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### 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: CNGA3

Alternative Name: CNGA3 ([CNGA3 Products](#))

Background: Cyclic nucleotide-gated cation channel alpha-3 (Cone photoreceptor cGMP-gated channel subunit alpha) (Cyclic nucleotide-gated channel alpha-3) (CNG channel alpha-3) (CNG-3) (CNG3),FUNCTION: Visual signal transduction is mediated by a G-protein coupled cascade using cGMP as second messenger. This protein can be activated by cyclic GMP which leads to an opening of the cation channel and thereby causing a depolarization of cone photoreceptors. Induced a flickering channel gating, weakened the outward rectification in the presence of extracellular calcium, increased sensitivity for L-cis diltiazem and enhanced the cAMP efficacy of the channel when coexpressed with CNGB3 (By similarity). Essential for the generation of light-evoked electrical responses in the red-, green- and blue sensitive cones. {ECO:0000250, ECO:0000269|PubMed:10888875}.

Molecular Weight: 78.8 kDa

UniProt: [Q16281](#)

Pathways: [Phototransduction](#)

## 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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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 **Might differ depending on protein.**

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: 12 months