

# Datasheet for ABIN3133291

## **GNAQ Protein (AA 1-359) (Strep Tag)**



#### Overview

Quantity:	1 mg
Target:	GNAQ
Protein Characteristics:	AA 1-359
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This GNAQ protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Brand:	AliCE®
Sequence:	MTLESIMACC LSEEAKEARR INDEIERQLR RDKRDARREL KLLLLGTGES GKSTFIKQMR
	IIHGSGYSDE DKRGFTKLVY QNIFTAMQAM IRAMDTLKIP YKYEHNKAHA QLVREVDVEK
	VSAFENPYVD AIKSLWNDPG IQECYDRRRE YQLSDSTKYY LNDLDRVADP SYLPTQQDVL
	RVRVPTTGII EYPFDLQSVI FRMVDVGGQR SERRKWIHCF ENVTSIMFLV ALSEYDQVLV
	ESDNENRMEE SKALFRTIIT YPWFQNSSVI LFLNKKDLLE EKIMYSHLVD YFPEYDGPQR
	DAQAAREFIL KMFVDLNPDS DKIIYSHFTC ATDTENIRFV FAAVKDTILQ LNLKEYNLV
	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.

- 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 posttranslational 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:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made
Target Details	
Target:	GNAQ

## **Target Details**

Alternative Name:	Gnaq (GNAQ Products)
Background:	Guanine nucleotide-binding protein G(q) subunit alpha (Guanine nucleotide-binding protein
	alpha-q),FUNCTION: Guanine nucleotide-binding proteins (G proteins) are involved as
	modulators or transducers in various transmembrane signaling systems (PubMed:9687499).
	Required for platelet activation (PubMed:9296496). Regulates B-cell selection and survival and
	is required to prevent B-cell-dependent autoimmunity (PubMed:20624888). Regulates
	chemotaxis of BM-derived neutrophils and dendritic cells (in vitro) (PubMed:17938235).
	Transduces FFAR4 signaling in response to long-chain fatty acids (LCFAs) (By similarity).
	Together with GNA11, required for heart development (PubMed:9687499).
	{ECO:0000250 UniProtKB:P50148, ECO:0000269 PubMed:17938235,
	ECO:0000269 PubMed:20624888, ECO:0000269 PubMed:9296496,
	ECO:0000269 PubMed:9687499}.
Molecular Weight:	42.2 kDa
JniProt:	P21279
Pathways:	JAK-STAT Signaling, Thyroid Hormone Synthesis, Myometrial Relaxation and Contraction
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.
	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 produc
	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!
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