

### Datasheet for ABIN3082379

# KLC2 Protein (AA 1-622) (Strep Tag)



### Overview

| Quantity:                     | 250 μg  |
|-------------------------------|---|
| Target:                       | KLC2  |
| Protein Characteristics:      | AA 1-622                                      |
| Origin:                       | Human   |
| Source:                       | Cell-free protein synthesis (CFPS)            |
| Protein Type:                 | Recombinant                                   |
| Purification tag / Conjugate: | This KLC2 protein is labelled with Strep Tag. |
| Application:                  | ELISA, Western Blotting (WB), SDS-PAGE (SDS)  |

| Product Details |   |  |
|-----------------|---|--|
| Brand:          | AliCE®  |  |
| Sequence:       | MAMMVFPREE KLSQDEIVLG TKAVIQGLET LRGEHRALLA PLVAPEAGEA EPGSQERCIL |  |
|                 | LRRSLEAIEL GLGEAQVILA LSSHLGAVES EKQKLRAQVR RLVQENQWLR EELAGTQQKL |  |
|                 | QRSEQAVAQL EEEKQHLLFM SQIRKLDEDA SPNEEKGDVP KDTLDDLFPN EDEQSPAPSP |  |
|                 | GGGDVSGQHG GYEIPARLRT LHNLVIQYAS QGRYEVAVPL CKQALEDLEK TSGHDHPDVA |  |
|                 | TMLNILALVY RDQNKYKEAA HLLNDALAIR EKTLGKDHPA VAATLNNLAV LYGKRGKYKE |  |
|                 | AEPLCKRALE IREKVLGKFH PDVAKQLSNL ALLCQNQGKA EEVEYYYRRA LEIYATRLGP |  |
|                 | DDPNVAKTKN NLASCYLKQG KYQDAETLYK EILTRAHEKE FGSVNGDNKP IWMHAEEREE |  |
|                 | SKDKRRDSAP YGEYGSWYKA CKVDSPTVNT TLRSLGALYR RQGKLEAAHT LEDCASRNRK |  |
|                 | QGLDPASQTK VVELLKDGSG RRGDRRSSRD MAGGAGPRSE SDLEDVGPTA EWNGDGSGSL |  |
|                 | RRSGSFGKLR DALRRSSEML VKKLQGGTPQ EPPNPRMKRA SSLNFLNKSV EEPTQPGGTG |  |
|                 | LSDSRTLSSS SMDLSRRSSL VG  |  |

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).
- 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).                                 |

| Product Details     |  |
|---------------------|--|
| Grade:              | custom-made  |
| Target Details      |  |
| Target:             | KLC2   |
| Alternative Name:   | KLC2 (KLC2 Products)   |
| Background:         | Kinesin light chain 2 (KLC 2),FUNCTION: Kinesin is a microtubule-associated force-producing protein that plays a role in organelle transport. The light chain functions in coupling of cargo to the heavy chain or in the modulation of its ATPase activity (Probable). Through binding with PLEKHM2 and ARL8B, recruits kinesin-1 to lysosomes and hence direct lysosomes movement toward microtubule plus ends (PubMed:22172677). {ECO:0000269 PubMed:22172677, ECO:0000305 PubMed:22172677}.  |
| Molecular Weight:   | 68.9 kDa   |
| UniProt:            | Q9H0B6   |
| 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 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! |
| Restrictions:       | For Research Use only  |
| Handling            |  |
| Format:             | Liquid   |

# Handling

| 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  |