

# Datasheet for ABIN3089922 **BARD1 Protein (AA 1-777) (Strep Tag)**

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# Overview

| Quantity:                     | 250 μg                                         |
|-------------------------------|------------------------------------------------|
| Target:                       | BARD1                                          |
| Protein Characteristics:      | AA 1-777                                       |
| Origin:                       | Human                                          |
| Source:                       | Cell-free protein synthesis (CFPS)             |
| Protein Type:                 | Recombinant                                    |
| Purification tag / Conjugate: | This BARD1 protein is labelled with Strep Tag. |
| Application:                  | ELISA, SDS-PAGE (SDS), Western Blotting (WB)   |

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|-----------------|-------------------------------------------------------------------|--|
| Product Details |                                                                   |  |
| Brand:          | AliCE®                                                            |  |
| Sequence:       | MPDNRQPRNR QPRIRSGNEP RSAPAMEPDG RGAWAHSRAA LDRLEKLLRC SRCTNILREP |  |
|                 | VCLGGCEHIF CSNCVSDCIG TGCPVCYTPA WIQDLKINRQ LDSMIQLCSK LRNLLHDNEL |  |
|                 | SDLKEDKPRK SLFNDAGNKK NSIKMWFSPR SKKVRYVVSK ASVQTQPAIK KDASAQQDSY |  |
|                 | EFVSPSPPAD VSERAKKASA RSGKKQKKKT LAEINQKWNL EAEKEDGEFD SKEESKQKLV |  |
|                 | SFCSQPSVIS SPQINGEIDL LASGSLTESE CFGSLTEVSL PLAEQIESPD TKSRNEVVTP |  |
|                 | EKVCKNYLTS KKSLPLENNG KRGHHNRLSS PISKRCRTSI LSTSGDFVKQ TVPSENIPLP |  |
|                 | ECSSPPSCKR KVGGTSGRKN SNMSDEFISL SPGTPPSTLS SSSYRRVMSS PSAMKLLPNM |  |
|                 | AVKRNHRGET LLHIASIKGD IPSVEYLLQN GSDPNVKDHA GWTPLHEACN HGHLKVVELL |  |
|                 | LQHKALVNTT GYQNDSPLHD AAKNGHVDIV KLLLSYGASR NAVNIFGLRP VDYTDDESMK |  |
|                 | SLLLLPEKNE SSSASHCSVM NTGQRRDGPL VLIGSGLSSE QQKMLSELAV ILKAKKYTEF |  |
|                 | DSTVTHVVVP GDAVQSTLKC MLGILNGCWI LKFEWVKACL RRKVCEQEEK YEIPEGPRRS |  |

RLNREQLLPK LFDGCYFYLW GTFKHHPKDN LIKLVTAGGG QILSRKPKPD SDVTQTINTV AYHARPDSDQ RFCTQYIIYE DLCNYHPERV RQGKVWKAPS SWFIDCVMSF ELLPLDS

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®).

| Product Details     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Purity:             | > 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Grade:              | custom-made                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Target Details      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Target:             | BARD1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Alternative Name:   | BARD1 (BARD1 Products)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Background:         | BRCA1-associated RING domain protein 1 (BARD-1) (EC 2.3.2.27) (RING-type E3 ubiquitin transferase BARD1),FUNCTION: E3 ubiquitin-protein ligase. The BRCA1-BARD1 heterodimer specifically mediates the formation of 'Lys-6'-linked polyubiquitin chains and coordinates a diverse range of cellular pathways such as DNA damage repair, ubiquitination and transcriptional regulation to maintain genomic stability. Plays a central role in the control of the cell cycle in response to DNA damage. Acts by mediating ubiquitin E3 ligase activity that is required for its tumor suppressor function. Also forms a heterodimer with CSTF1/CSTF-50 to modulate mRNA processing and RNAP II stability by inhibiting pre-mRNA 3' cleavage. {ECO:0000269 PubMed:12890688, ECO:0000269 PubMed:14976165, ECO:0000269 PubMed:20351172}. |
| Molecular Weight:   | 86.6 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| UniProt:            | Q99728                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Pathways:           | DNA Damage Repair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 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                                                                                                                                                                                                                                                                                                                                             |

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components needed for protein production (amino acids, cofactors, etc.) are added to produce

# **Application Details**

|                  | 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                                                                                                                                                      |