

**RECOMBINANT MULTIDRUG RESISTANCE ABC TRANSPORTER
ATP-BINDING/PERMEASE PROTEIN BmRA**

2017

Protein information

Target Name Multidrug resistance ABC transporter ATP-binding/permease protein BmRA

Catalogue Number PP3

Class Multidrug resistance ABC transporter

Sequence Full-length, wildtype sequence, with a N-terminus **6xHis-tag**

MSSSHHHHHMPTKKQKSKSKLPPFFALVRRNTNPSYGKLAFFALALS SVTTLVSLLIPLLLTKQLVDGFS
MSNLSGTQIGLIALVFFVQAGLSAYATYALNYNGQKIISGLRELLWKKLIKLPVSYFDTNASGETVSRV
TNDTMVVKELITTHISGFITGIISVIGSLTILFIMNWKLTLVLVVVPLAALILVPIGRKMFSSISRETQDE
TARFTGLLNQILPEIRLVKASNAEDVEYGRGKMGISSLFKLGVREAKVQSLVGPLISLVLMAALVAVIG
YGGMQVSSGELTAGALVAFILYLFQIIMPMGQITTFQQLQKSGATERMIEILAEEDTGTGKQIEN
AHLPIQLDRVSFGYKPDQLILKEVSAVIEAGKVTAIVGPSGGGKTLFLKLLERFYSPTAGTIRLGDEPV
DTYSLESWREHIGYVSQESPLMSGTIRENICYGLERDVTDAEIEKAAEMAYALNFIKELPNQFDTEVG
ERGIMLSGGQRQRIARALLRNPSILMLDEATSSLDSQSEKSVQQALEVLMEGRTTIVIAHRLSTVV
DADQLLVEKGEITGRGTHHELMASHGLYRDFAEQQLKMNADLENKAG

Affinity Tag His-tag (N-terminal)

Origin *Bacillus subtilis* (strain 168)

Theor. MW 64.5 kDa

Accession # O06967 (UniProt)

Protein production

Expression system *Escherichia coli* (BL21C43)

Purification Immobilized Metal Affinity Chromatography

Purity >90%

Activity Confirmed by ATPase activity assay

Concentration Up to 5mg/ml

Sample Buffer 50mM HEPES pH 8.0, 150 mM NaCl, 0.01% DDM

Available quantity From 10µg up to mg scale

References

- 1- Desuzinges Mandon E. et al. Novel systematic detergent screening method for membrane proteins solubilization. *Anal Biochem.* 2017 Jan 15;517:40-49.
- 2- Matar-Merheb R. et al. Structuring detergents for extracting and stabilizing functional membrane proteins. *PLoS One.* 2011 Mar 31; 6(3):e18036.
- 3- Stéphanie Ravaud et al. The ABC transporter BmRA from *Bacillus subtilis* is a functional dimer when in a detergent-solubilized state. *Biochem J.* 2006 Apr 15; 395(Pt 2): 345–353.

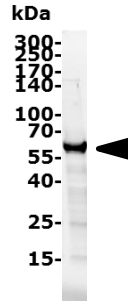
Miscellaneous

Shipment Temperature Dry ice



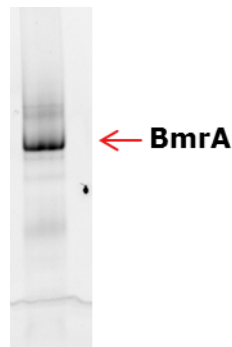
Storage conditions Store at -80°C

Quality Controls (Purity and Activity):



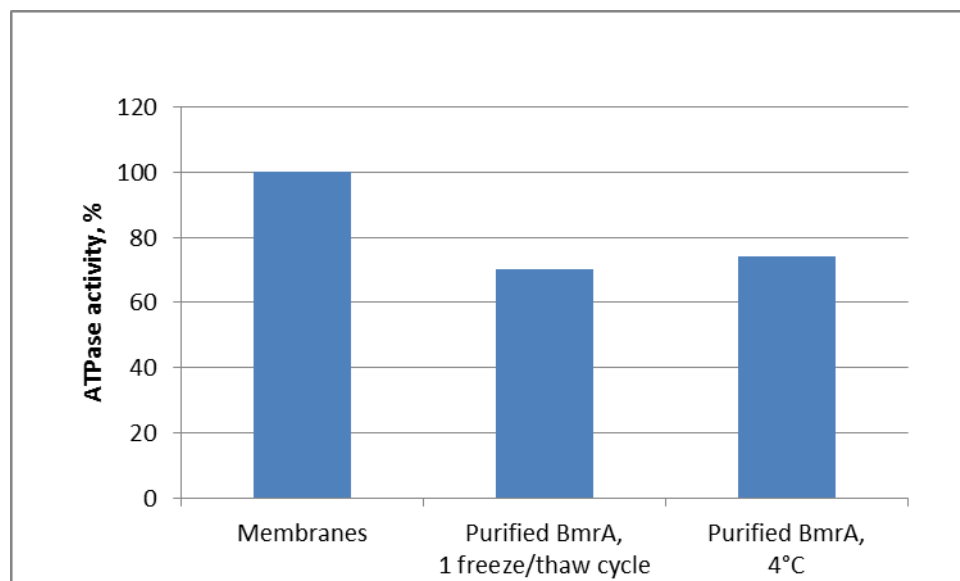
SDS-PAGE.

IMAC elution fraction of BmrA was migrated on a 4-15% Tris-glycine SDS-PAGE and the total proteins were Stain-Free detected. The black arrow indicates full-length BmrA.



Clear Native-PAGE.

Purified BmrA was migrated on a 4-15% Tris-glycine native-PAGE and the total proteins were Stain-Free detected.



ATPase activity of BmrA.

Sample specific ATPase activity was measured by a colorimetric assay (see 2 and 3).

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