

RECOMBINANT MULTIDRUG EFFLUX PUMP SUBUNIT AcrB

2017

Protein information

Target Name Multidrug efflux pump subunit AcrB

Catalogue Number PP4

Class Multidrug efflux pump

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

MPNFFIDRPIFAWVIAIIIMLAGGLAILKLPVAQYPTIAPPAVTISASYPGADAKTVQDVTQVIEQNMN
GIDNLMYMSSNSDSTGTVQITLTFESGTDADIAQVQVQNKQLQAMP LLPQEVQQQGVSVVEKSSSSSF
LMVVG VINTDGTMTQEDISDYVAANMKDAISRTSGVGDVQLFGSQYAMRIWMNPNELNKFQLTPV
DVITA IKAQNAQVAAGQLGGT PPKVKGQQLNASIIAQTRLTSTEEFGKILLKVNQD GSRVLLRDVAKIE
LGGENYDIIAEFNGQPASGLGIKLATGANALD TAAAIRAELAKMEPFFPSGLKIVYPYD TTPFVKISIE
VVKTLVEA IILVFLVMYLF LQNFRATLIPTI AVPVVLLGTFAVLAAF GFSINTLTMFGMVLAIGLLVDDAI
VVVENVERVMAEEGLPPKEATR KSMGQIQGALVGIAMVLSAVFVPM AFFGGSTGAIYRQFSITIVSA
MALSVLVALILTPALCATMLKPIAKGDHGEKKGFFGWFNRMFEKSTHHY TDSVGGILRSTGRYLVL
YLIIIVGMAYLFVRLPSSFLPDEDQGVFMTMVQLPAGATQERTQKVLNEVTHYYLTKEKNNVESVFAV
NGFGFAGRGQNTGIAFVSLKDWADRPGEENKVEAITMRATRAFSQIKDAMVFAFNLP AIVELGTATG
FDFELIDQAGLGHEKLTQARNQLLAEAAKHPDMLTSVRPNGL EDTPQFKIDIDQEKAQALGVSINDI
NTTLGAAWGGSYVND FIDRGRVKKVYVMSEAKYRMLPDDIGDWYVRAADGQMVPFSAFSSSRWE
YGSRLERYNGLPSMEILGQAAPGKSTGEAMELMEQLASKLPTGVGYDWTGMSYQERLSGNQAPSL
YAI SLIVVFLCLAALYESWSIPFSVMLVPLGVIGALLAATFRGLTNDVYFQVGLLTTIGLSAKNAILIVE
FAKDLMDKEGKGLIEATLDAVRMRLRPILMTSLAFILGVMP LVISTGAGSGAQN AVGTGVMGGMVT
ATVLAIFFVPVFFV VVRRRFRSRKNEDIEHSHTVDH HLEHHHHHH

Affinity Tag His-tag (C-terminal)

Origin *Escherichia coli* (strain K12)

Theor. MW 114.6 kDa

Accession # P31224 (UniProt)

Protein production

Expression system *Escherichia coli* (BL21C43)

Purification Immobilized Metal Affinity Chromatography

Purity >95%

Activity Confirmed by ligand binding

Concentration Up to 5mg/ml

Sample Buffer 25mM Na₂HPO₄, 150mM NaCl, 0.2% DDM, Protease inhibitors 1X

Available quantity From 10µg to mg scale

References 1- Eicher T. et al. Transport of drugs by the multidrug transporter AcrB involves an access and a deep binding pocket that are separated by a switch-loop. *Proc Natl Acad Sci U S A*. 2012 Apr 10; 109(15):5687-92.

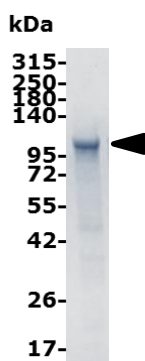


2- Pos KM. et al. Purification, crystallization and preliminary diffraction studies of AcrB, an inner-membrane multi-drug efflux protein. Acta Crystallogr Biol Crystallogr. 2002; D58 (Pt 10 Pt 2):1865–1867.

Miscellaneous

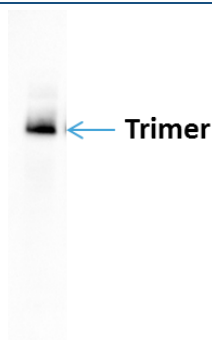
Shipment Temperature	Dry ice
Storage conditions	Store at -80°C

Quality Controls (Purity and Activity):



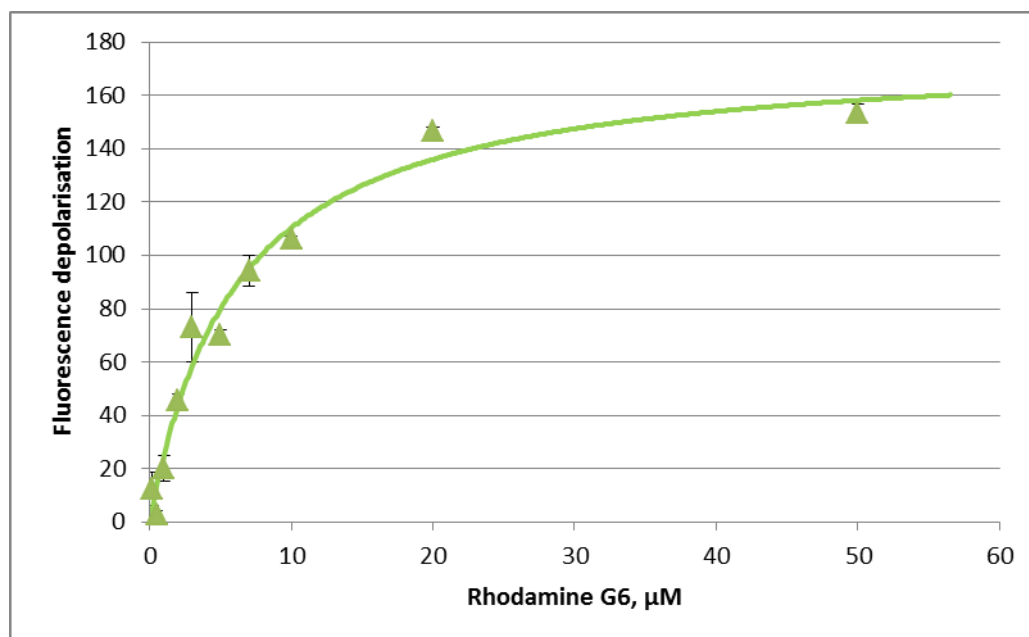
SDS-PAGE.

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



CN-PAGE

Purified AcrB was migrated on a 4-15% Tris-glycine native-PAGE and visualized using Bio-Rad stain-free technology.



QC: Activity measured by binding assay (fluorescence polarization)

Binding of Rhodamine G was measured on purified AcrB. A K_D of $6\mu\text{M}$ was determined for Rhodamine G6.

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