PROTEIN DATA SHEET – ACRB

RECOMBINANT MULTIDRUG EFFLUX PUMP SUBUNIT ACRB 2019

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: MPNFFIDRPIFAWVIAIIIMLAGGLAILKLPVAQYPTIAPPAVTISASYPGADAKTVQDTVTQVIEQNMN GIDNLMYMSSNSDSTGTVQITLTFESGTDADIAQVQVQNKLQLAMPLLPQEVQQQGVSVEKSSSSF LMVVGVINTDGTMTQEDISDYVAANMKDAISRTSGVGDVQLFGSQYAMRIWMNPNELNKFQLTPV DVITAIKAQNAQVAAGQLGGTPPVKGQQLNASIIAQTRLTSTEEFGKILLKVNQDGSRVLLRDVAKIE LGGENYDIIAEFNGQPASGLGIKLATGANALDTAAAIRAELAKMEPFFPSGLKIVYPYDTTPFVKISIHE VVKTLVEAIILVFLVMYLFLQNFRATLIPTIAVPVVLLGTFAVLAAFGFSINTLTMFGMVLAIGLLVDDAI VVVENVERVMAEEGLPPKEATRKSMGQIQGALVGIAMVLSAVFVPMAFFGGSTGAIYRQFSITIVSA MALSVLVALILTPALCATMLKPIAKGDHGEGKKGFFGWFNRMFEKSTHHYTDSVGGILRSTGRYLVL YLIIVVGMAYLFVRLPSSFLPDEDQGVFMTMVQLPAGATQERTQKVLNEVTHYYLTKEKNNVESVFAV NGFGFAGRGQNTGIAFVSLKDWADRPGEENKVEAITMRATRAFSQIKDAMVFAFNLPAIVELGTATG FDFELIDQAGLGHEKLTQARNQLLAEAAKHPDMLTSVRPNGLEDTPQFKIDIDQEKAQALGVSINDI NTTLGAAWGGSYVNDFIDRGRVKKVYVMSEAKYRMLPDDIGDWYVRAADGQMVPFSAFSSSRWE YGSPRLERYNGLPSMEILGQAAPGKSTGEAMELMEQLASKLPTGVGYDWTGMSYQERLSGNQAPSL YAISLIVVFLCLAALYESWSIPFSVMLVVPLGVIGALLAATFRGLTNDVYFQVGLLTTIGLSAKNAILIVE FAKDLMDKEGKGLIEATLDAVRMRLRPILMTSLAFILGVMPLVISTGAGSGAQNAVGTGVMGGMVT ATVLAIFFVPVFFVVVRRRFSRKNEDIEHSHTVDHHLEHHHHHH
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 Na_2HPO_4, 100mM NaCl, 0.01% DDM
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.

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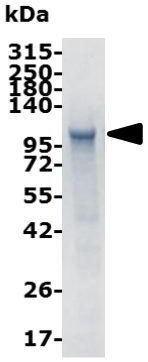
2- Pos KM. et al. Purification, crystallization and preliminary diffraction studies of AcrB, an inner-membrane multi-drug efflux protein. Acta Crystallogr Biol Crystallogr. 2002; D58 (Pt 10 Pt 2):1865–1867.

Miscellaneous

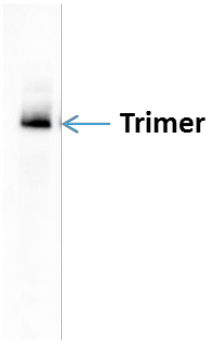
Shipment Temperature	Dry ice
Storage conditions	Store at -80°C

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.

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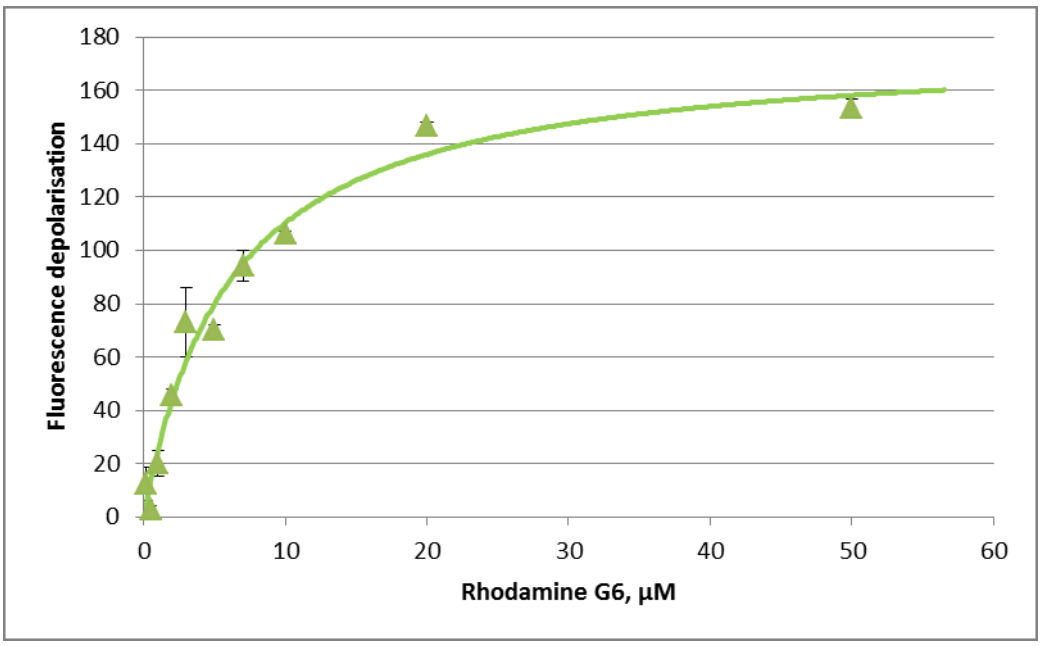

QC: Activity measured by binding assay (fluorescence polarization)
Binding of Rhodamine G was measured on purified AcrB. A KD of 6µM was determined for Rhodamine G6.

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