

PRODUCT INFORMATION



AcrB (*E. coli* K12)

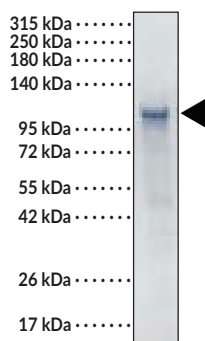
Item No. 24733

Overview and Properties

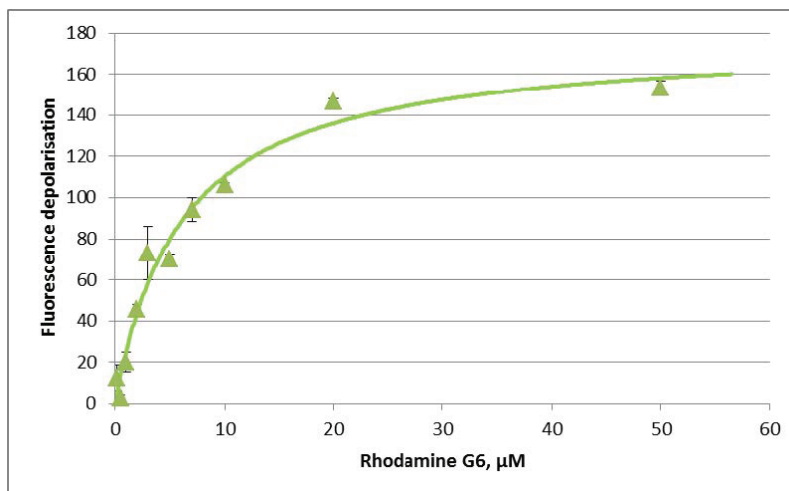
Synonym: Multidrug Efflux Pump Subunit AcrB
Source: C-terminal His-tagged AcrB (*E. coli* K12 recombinant) purified from *E. coli*
Amino acids: Full length, wild-type sequence
Uniprot No.: P31224
Molecular Weight: 114.6 kDa
Storage: -80°C (as supplied)
Stability: ≥2 years
Purity: **batch specific** (≥95% estimated by SDS-PAGE)
Supplied in: 25 mM disodium phosphate, 150 mM sodium chloride, and 0.01% DDM

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Images



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.



QC: Activity measured by binding assay (fluorescence polarization)

Binding of Rhodamine G was measured on purified AcrB. A K_D of 6 μ M was determined for Rhodamine G6.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

AcrB is an inner membrane-associated transporter and component of the constitutively expressed, multidrug efflux system AcrAB in *E. coli*.¹ It forms a complex with periplasmic and oligomeric AcrA in the presence and absence of the outer membrane component TolC to directly transport substrates from the cell interior to the periplasm. AcrB is encoded by *acrAB* which is upregulated in multiple-antibiotic-resistant *E. coli* strains, and deletion of *acrAB* increases *E. coli* susceptibility to various antibiotics (MICs = 1.25-100 and 0.3-5 mg/l for wild-type and DacrAB *E. coli* strains, respectively).²

References

1. Zgurskaya, H.I. and Nikaido, H. Cross-linked complex between oligomeric periplasmic lipoprotein AcrA and the inner-membrane-associated multidrug efflux pump AcrB from *Escherichia coli*. *J. Bacteriol.* **182**(15), 4264-4267 (2000).
2. Okusu, H., Ma, D., and Nikaido, H. AcrAB efflux pump plays a major role in the antibiotic resistance phenotype of *Escherichia coli* multiple-antibiotic-resistance (Mar) mutants. *J. Bacteriol.* **178**(1), 306-308 (1996).

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