Multidrug Resistance Protein 1 (mrp1) Human Recombinant Protein

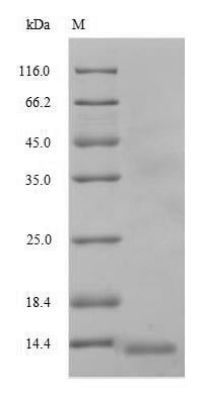
PRODUCT OVERVIEW

Product Name	Multidrug resistance protein 1 (mrp1), Recombinant Protein
Full Product Name	Recombinant Human Multidrug resistance protein 1
Product Gene Name	mrp1 recombinant protein
Product Synonym Names	ATP-binding cassette sub-family B member 1; P-glycoprotein 1; CD243
Sequence	LSSFTDKELL AYAKAGAVAE EVLAAIRTVI AFGGQKKELE RYNKNLEEAK RIGIKKAITA NI
Host	E Coli or Yeast or Baculovirus or Mammalian Cell
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)
Preparation and Storage	Store at -20 degree C, for extended storage, conserve at -20 degree C or -80 degree C.
Molecular Weight	10.8 kDa
Sequence Positions	236-297aa; Partial
Tag Information	This protein contains an N-terminal tag and may also contain a C-terminal tag. Tag types are determined by various factors including tag-protein stability, please inquire for tag information.
Sterility	Sterile filter available upon request.
Endotoxin	Low endotoxin available upon request.
OMIM	171050
3D Structure	ModBase 3D Structure for P08183
Product Categories/Family for mrp1 recombinant protein	Transport
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for mrp1 recombinant protein	Energy-dependent efflux pump responsible for decreased drug accumulation in multidrug-resistant cells.

Product References and Citations for mrp1 recombinant protein

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Pharmacokinet. 17:479-481(2002) Twelve novel single nucleotide polymorphisms in ABCB1/MDR1 among Japanese patients with ventricular tachycardia who were administered amiodarone.Itoda M., Saito Y., Komamura K., Ueno K., Kamakura S., Ozawa S., Sawada J.Drug Metab. Pharmacokinet. 17:566-571(2002) Three hundred twenty-six genetic variations in genes encoding nine members of ATP-binding cassette, subfamily B

Other Notes	Small volumes of mrp1 recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for mrp1 purchase	MBS1265527 is a recombinant protein targeting mrp1. Also known as Recombinant Human Multidrug resistance protein 1. Host: E Coli or Yeast or Baculovirus or Mammalian Cell.



SDS-PAGE of mrp1 recombinant protein

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for mrp1. It may not necessarily be applicable to this product.

NCBI GI #	42741659
NCBI GeneID	5243
NCBI Accession #	NP_000918.2
UniProt Primary Accession #	P08183
UniProt Secondary Accession #	Q12755; Q14812; A8K294; B5AK60
UniProt Related Accession #	P08183
GenBank Nucleotide #	NM_000927.4
NCBI Official Full Name	multidrug resistance protein 1
NCBI Official Synonym Full Names	ATP binding cassette subfamily B member 1
NCBI Official Symbol	ABCB1
NCBI Official Synonym Symbols	CLCS; MDR1; P-GP; PGY1; ABC20; CD243; GP170
UniProt Protein Name	Multidrug resistance protein 1
UniProt Synonym Protein Names	ATP-binding cassette sub-family B member 1; P-glycoprotein 1; CD_antigen: CD243
Protein Family	37S ribosomal protein
UniProt Gene Name	ABCB1
UniProt Synonym Gene Names	MDR1; PGY1
UniProt Entry Name	MDR1_HUMAN
NCBI Protein Information	multidrug resistance protein 1

NCBI Summary for mrp1	The membrane-associated protein encoded by this gene is a member of the superfamily of ATP-binding cassette (ABC) transporters. ABC proteins transport various molecules across extra- and intra-cellular membranes. ABC genes are divided into seven distinct subfamilies (ABC1, MDR/TAP, MRP, ALD, OABP, GCN20, White). This protein is a member of the MDR/TAP subfamily. Members of the MDR/TAP subfamily are involved in multidrug resistance. The protein encoded by this gene is an ATP-dependent drug efflux pump for xenobiotic compounds with broad substrate specificity. It is responsible for decreased drug accumulation in multidrug-resistant cells and often mediates the development of resistance to anticancer drugs. This protein also functions as a transporter in the blood-brain barrier. [provided by RefSeq, Jul 2008]
UniProt Comments for mrp1	ABCB1: Energy-dependent efflux pump responsible for decreased drug accumulation in multidrug-resistant cells. Belongs to the ABC transporter superfamily. ABCB family. Multidrug resistance exporter (TC 3.A.1.201) subfamily. Interacts with PSMB8. Protein type: Membrane protein, integral; Hydrolase; EC 3.6.3.44; Transporter, ABC family; Transporter; Membrane protein, multi-pass; Cell adhesion Chromosomal Location of Human Ortholog: 7q21.12 Cellular Component: cell surface; integral to membrane; membrane; plasma membrane Molecular Function: ATP binding; ATPase activity, coupled to transmembrane movement of substances; protein binding; transporter activity; xenobiotic-transporting ATPase activity Biological Process: antigen processing and presentation of endogenous peptide antigen via MHC class I via ER pathway, TAP-dependent; antigen processing and presentation of endogenous peptide antigen via MHC class Ib via ER pathway, TAP-dependent; antigen processing and presentation of exogenous protein antigen via MHC class Ib, TAP-dependent; G2/M transition of mitotic cell cycle; multidrug transport; positive regulation of antigen processing and presentation of peptide antigen via MHC class I; response to drug; transmembrane transport; transport; xenobiotic transport Disease: Colchicine Resistance; Inflammatory Bowel Disease 13
Research Articles on mrp1	**1.** The association of antidepressant treatment outcome and six ABCB1 single nucleotide polymorphisms, was studied.
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