

Recombinant Rat Abcb1b

Cat. No. Abcb1b-2546R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Rat Abcb1b is produced in <i>Sf9 cells</i> .
Species	Rat
Source	Sf9 Cells
Description	Detection of the ATPase activity of the Mdr1b protein is a measure of transporter activity. The assay is performed using purified membrane vesicles from Sf9 (<i>Spodoptera frugiperda</i>) cells, expressing high levels of Mdr1b protein. The ABC transporters pump substrates out of the cell by using hydrolysis of ATP as an energy source. ATP hydrolysis yields inorganic phosphate (Pi), which can be detected by a simple colorimetric reaction. The amount of Pi liberated is proportional to the activity of the transporter.
Form	Membrane preparation.
Diagnostic Implications	The MDR1 protein is involved in cancer drug resistance and in the transport of hydrophobic drugs and xenobiotics in the bowel, kidney, liver, and the blood-brain barrier. In rodents, there are two MDR1 genes, <i>mdr1a</i> and <i>mdr1b</i> , while in human, there is a single MDR1 gene. Based on function and tissue distribution in rodents, the equivalent of the human MDR1 gene product (PgP) is the product of the rodent <i>mdr1b</i> gene. There have been no reported significant differences in function, substrate specificity, or substrate affinity between these two proteins.
Storage	-70°C. Shipped in dry ice.

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GENE INFORMATION

Gene Name	Abcb1b ATP-binding cassette, sub-family B (MDR/TAP), member 1B [<i>Rattus norvegicus</i>]
Synonyms	Abcb1b; ATP-binding cassette, sub-family B (MDR/TAP), member 1B; ATP-binding cassette sub-family B (MDR/TAP) member 1 (P-glycoprotein/multidrug resistance 1); ATP-binding cassette sub-family B member 1; ATP-binding cassette, sub-family B (MDR/TAP), member 1 (P-glycoprotein/multidrug resistance 1); ATP-binding cassette, subfamily B, member 1B; P-glycoprotein 1; P-glycoprotein/multidrug resistance 1; multidrug resistance protein 1; Abcb1; Mdr1; Pgy1
Gene ID	24646
mRNA Refseq	NM_012623
Protein Refseq	NP_036755
UniProt ID	P43245
Chromosome Location	4q12
Pathway	ABC transporters
Function	ATP binding; ATPase activity; drug transmembrane transporter activity; nucleotide binding; xenobiotic-transporting ATPase activity; transporter activity; protein binding

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