

Rat BCRP Vesicles, ABC transporter vesicles

Cat. No. BCRP Vesicles-06R **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Rat BCRP Vesicles are insect derived purified plasma membranes with inserted BCRP transport protein (Breast Cancer Resistance Protein, ABCG2). Our Rat BCRP Vesicles can be used to evaluate test compounds and drug interactions with BCRP in in vitro assays. BSEP is an ATP-binding cassette (ABC) transporter associated with multidrug resistance, which carries various anti-cancer drugs such as topotecan, methotrexate and mitoxantrone.

Species Rat

Source Insect Cells

Description

Rat BCRP Vesicles are part of a larger group of transporter vesicles known as ABC transporter vesicles. They are prepared from purified plasma membranes isolated from an insect cell system (Sf9 cells transfected with baculovirus) expressing BCRP. It is highly expressed in tumors like lung cancer and also in small intestinal epithelial cells, hepatic parenchymal cells, proximal renal tubule cells, and cerebrovascular endothelial cells. It is thought to be an important determinant of drug disposition, through its role in processes such as absorption at the small intestine, excretion into bile and urine, and transfer across the blood-brain barrier to the CNS.

Form Frozen

Concept Behind ABC Transporter Vesicles

ABC transporter vesicles are easy-to-use, efficient reagents for early assessment of a drug candidate's substrate and drug interaction potential. While ABC transporters

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typically mediate the export of substrates out of cells, transporters expressed on these inside-out vesicles import substrates into the vesicles. It is therefore possible to quantitatively evaluate transport activity for your compound by determining the amount incorporated into the vesicles.

Clear and Reliable Results

Prepared from Sf9 cells which have been engineered to over-express specific ABC transporters, these 'inside-out' vesicles provide high levels of transporter activity with low background, giving you a clear signal if your compound is a substrate or inhibitor of a specific efflux transporter.

Applications

Use Rat BCRP Vesicles to: Investigate the transporter interactions of your drug candidates Assess potential for transporter-mediated drug-drug interactions Obtain high quality results with a large signal to noise ratios

Notes

For Research Use Only. Not for use in diagnostic procedures.

Storage

Store at -80 centigrade.

Shipping

Dry Ice

GENE INFORMATION

Gene Name


[Abcg2 ATP binding cassette subfamily G member 2 \[Rattus norvegicus \(Norway rat\) \]](#)

Official Symbol

[ABCG2](#)

Synonyms

ABCG2; ATP-binding cassette, subfamily G (WHITE), member 2; ATP-binding cassette sub-family G member 2; ATP-binding cassette protein G2; breast cancer resistance protein 1 homolog; ATP-binding cassette, sub-family G (WHITE), member 2; BCRP1;

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Gene ID	312382
mRNA Refseq	NM_181381
Protein Refseq	NP_852046
UniProt ID	Q80W57

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