

Corning® TransportoCells™ HEK293-derived Human MRP2 Vesicles

Catalog Number.....453803
Lot Number.....0183001

Storage Conditions.. -80°C
Date Released.....2020 June
Expiration Date.....2025 June

Product Description: MRP2 membrane vesicles are prepared from Human Embryonic Kidney (HEK) 293 cells overexpressing human multidrug resistance-associated protein 2 (MRP2, ABCC2) (Gene Accession No. NM_000392). MRP2 is an efflux transporter and expressed primarily in liver, kidney, gastrointestinal tract (GI), and placenta. In liver, MRP2 is important for elimination of organic anions (drug conjugates and conjugated bilirubin) into bile. It also plays a similar role in renal elimination in kidney.

Negative Control Vesicles (Cat. No. 453800) prepared from HEK293 cells transfected with empty vector can be used as a control for this product.

Package Contents.....2.5 mg protein in 0.5 mL
Protein Content.....5.0 mg/mL in TMEP*

*TMEP: 50 mM Tris-Base, 50 mM Mannitol, 2 mM EGTA, 2 mM 2-Mercaptoethanol, pH 7.0 and a 1:1000 dilution of Protease Inhibitor Cocktail (Sigma Cat. No. P-8340).

QUALITY CONTROL:

Specification	Criteria	Result
Uptake Assay	Transporter: Human MRP2	PASS
	Substrate: 50 µM estradiol-17β-glucuronide	
	Incubation time: 5 min	
	S/N Ratio*: ≥10	

*S/N Ratio: Signal to noise ratio is the ratio of uptake activity with ATP versus uptake activity with AMP.

METHOD: Corning Gentest™ MRP/BCRP Vesicle Assay Kit (Cat. No. 459010) is used to perform the uptake assay of MRP2 vesicles. The activity is measured using a rapid filtration technique. A 60 µL reaction mixture containing 50 µg vesicles and 50.0 µM E17βG in Assay Uptake Buffer (47 mM MOPs, 65 mM KCl, 7 mM MgCl₂, pH 7.4) is pre-incubated at 37°C for 10 min. Uptake transport is initiated by addition of 15 µL of 25 mM MgATP or 25 mM AMP into the samples followed by 5 min. incubation at 37°C. The reaction is terminated by transferring the vesicles/substrate mixture to a glass fiber filter plate followed by washing with 1X cold wash buffer (40 mM MOPs, 70 mM KCl, pH 7.4) for five times. After the filter plate is completely dry, the radioactivity is measured with scintillation counter.

STORAGE and HANDLING

- Thaw vesicles on ice and keep on ice until use.
- The vesicle activity can be compromised upon freezing and thawing. After initial thaw, it is highly recommended to aliquot into single use vials to minimize freeze-thaw cycles.
- Triplicate samples per assay conditions are recommended.

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- The concentration of test compound and incubation time usually depends upon the specific characteristics of the drug.

Quality Assurance:



Date:

18 June, 2020

SAFETY RECOMMENDATIONS:

Safety assessment indicates this product is not hazardous, therefore no SDS (Safety Data Sheet) is provided. Handle in accordance with good industrial hygiene and laboratory safety practices.

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