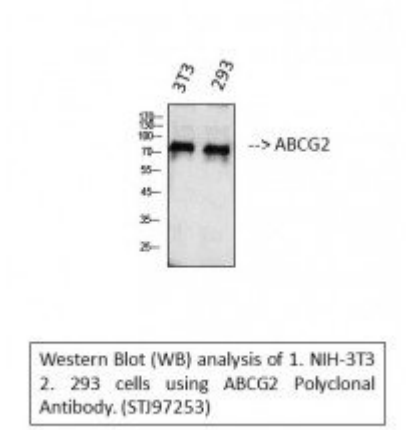
Anti-ABCG2 antibody



Western Blot (WB) analysis of 1. NIH-3T3 2. 293 cells using ABCG2 Polyclonal Antibody. (STJ97253)

Description	ABCG2 is a protein encoded by the ABCG2 gene which is approximately 72, 3 kDa. ABCG2 is localised to the cell membrane and mitochondrion membrane. It is involved in the Gefitinib pathway, Irinotecan pathway, and pyrimidine metabolism. It is a high-capacity urate exporter functioning in both renal and extrarenal urate excretion. It plays a role in porphyrin homeostasis as it is able to mediate the export of protoporhyrin IX both from mitochondria to cytosol and from cytosol to extracellular space, and cellular export of hemin, and heme. ABCG2 is highly expressed in the placenta. Mutations in the ABCG2 gene may result in erythroplakia and hyperuricemia. STJ97253 was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. This polyclonal antibody detects endogenous levels of ABCG2 protein.

Model	STJ97253
Host	Rabbit
Reactivity	Human
Applications	ELISA, IF, IHC-p, WB
Immunogen	Synthesized peptide derived from human ABCG2.
Immunogen Region	461-510 aa, Internal
Gene ID	9429
Gene Symbol	ABCG2
Dilution range	IF 1:50-200WB 1:500-1:2000IHC-p 1:100-1:300ELISA 1:10000
Specificity	ABCG2 polyclonal antibody detects endogenous levels of ABCG2 protein.
Tissue Specificity	Highly expressed in placenta. Low expression in small intestine, liver and

	colon. Expressed in brain (at protein level).
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	FOR RESEARCH USE ONLY (RUO).
Protein Name	Broad Substrate Specificity Atp-Binding Cassette Transporter Abcg2Atp-Binding Cassette Sub-Family G Member 2Breast Cancer Resistance ProteinCdw338Mitoxantrone Resistance-Associated ProteinPlacenta-Specific Atp-Binding Cassette TransporterUrate ExporterCd Antigen Cd338
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at-20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:74OMIM:138900
Alternative Names	Anti-Broad Substrate Specificity Atp-Binding Cassette Transporter Abcg2 antibodyAnti-Atp-Binding Cassette Sub-Family G Member 2 antibodyAnti-Breast Cancer Resistance Protein antibodyAnti-Cdw338 antibodyAnti-Mitoxantrone Resistance-Associated Protein antibodyAnti-Placenta-Specific Atp-Binding Cassette Transporter antibodyAnti-Urate Exporter antibodyAnti-Cd Antigen Cd338 antibodyAnti-ABCG2 ABCP BCRP BCRP1 MXR antibody
Function	Broad substrate specificity ATP-dependent transporter of the ATP-binding cassette (ABC) family that actively extrudes a wide variety of physiological compounds, dietary toxins and xenobiotics from cells. Involved in porphyrin homeostasis, mediating the export of protoporphyrin IX (PPIX) from both mitochondria to cytosol and cytosol to extracellular space, it also functions in the cellular export of heme. Also mediates the efflux of sphingosine-1-P from cells. Acts as a urate exporter functioning in both renal and extrarenal urate excretion. In kidney, it also functions as a physiological exporter of the uremic toxin indoxyl sulfate. Also involved in the excretion of steroids like estrone 3-sulfate/E1S, 3beta-sulfooxy-androst-5-en-17-one/DHEAS, and other sulfate conjugates. Mediates the secretion of the riboflavin and biotin vitamins into milk. Extrudes pheophorbide a, a phototoxic porphyrin catabolite of chlorophyll, reducing its bioavailability. Plays an important role in the exclusion of xenobiotics from the brain (Probable). It confers to cells a resistance to multiple drugs and other xenobiotics including mitoxantrone, pheophorbide, camptothecin, methotrexate, azidothymidine, and the anthracyclines daunorubicin and doxorubicin, through the control of their efflux. In placenta, it limits the penetration of drugs from the maternal plasma into the fetus. May play a role in early stem cell self-renewal by blocking differentiation.
Cellular Localization	Cell MembraneMulti-Pass Membrane ProteinApical Cell MembraneMitochondrion MembraneEnriched In Membrane Lipid Rafts
Post-translational	N-glycosylated. Glycosylation-deficient ABCG2 is normally expressed and

Modifications	functional.; Phosphorylated. Phosphorylation at Thr-362 by PIM1 is induced by drugs like mitoxantrone and is associated with cells increased drug resistance. It regulates the localization to the plasma membrane, the homooligomerization and therefore, the activity of the transporter.