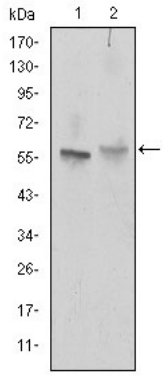
ABCG2 Monoclonal Antibody

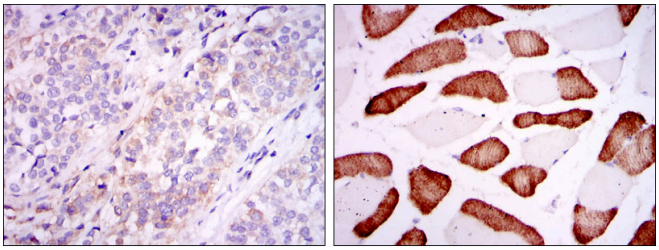
Catalog No	YP-Ab-00593
Isotype	IgG
Reactivity	Human;Mouse;Monkey
Applications	WB;IHC;IF;FCM;ELISA
Gene Name	ABCG2
Immunogen	Purified recombinant fragment of human ABCG2 expressed in E. Coli.
Specificity	ABCG2 Monoclonal Antibody detects endogenous levels of ABCG2 protein.
Formulation	Ascitic fluid containing 0.03% sodium azide,0.5% BSA, 50%glycerol.
Source	Monoclonal, Mouse
Purification	Affinity purification
Dilution	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/200 - 1/1000. Immunofluorescence: 1/200 - 1/1000. Flow cytometry: 1/200 - 1/400. ELISA: 1/10000. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	ABCG2;BCRP;ABC15;ABCP;ATP-binding cassette sub-family G member 2;BCRP1;MXR;Breast cancer resistance protein;CDw338;Mitoxantrone resistance-associated protein;Placenta-specific ATP-binding cassette transporter;CD antigen CD338
Observed Band	
Calculated Molecular Weight	72kD
Cell Pathway	Cell membrane ; Multi-pass membrane protein . Apical cell membrane ; Multi-pass membrane protein . Mitochondrion membrane ; Multi-pass membrane protein . Enriched in membrane lipid rafts. .
Tissue Specificity	Highly expressed in placenta (PubMed:9850061). Low expression in small intestine, liver and colon (PubMed:9861027). Expressed in brain (at protein level) (PubMed:12958161).
Function	function:Xenobiotic transporter that may play an important role in the exclusion of xenobiotics from the brain. May be involved in brain-to-blood efflux. Appears to play a major role in the multidrug resistance phenotype of several cancer cell lines. When overexpressed, the transfected cells become resistant to mitoxantrone, daunorubicin and doxorubicin, display diminished intracellular

	accumulation of daunorubicin, and manifest an ATP-dependent increase in the efflux of rhodamine 123.,induction:Up-regulated in brain tumors., PTM:Glycosylation-deficient ABCG2 is normally expressed and functional., similarity:Belongs to the ABC transporter family. ABCG (White) subfamily., similarity:Contains 1 ABC transmembrane type-2 domain.,similarity:Contains 1 ABC transporter domain.,subunit:Monomer or homodimer; disulfide-linked., tissue specificity:Highly expressed in placenta. Low expression in small i
Background	The membrane-associated protein encoded by this gene is included in 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 White subfamily. Alternatively referred to as a breast cancer resistance protein, this protein functions as a xenobiotic transporter which may play a major role in multi-drug resistance. It likely serves as a cellular defense mechanism in response to mitoxantrone and anthracycline exposure. Significant expression of this protein has been observed in the placenta, which may suggest a potential role for this molecule in placenta tissue. Multiple transcript variants encoding different isoforms have been found for this gene.
matters needing attention	Avoid repeated freezing and thawing!
Usage suggestions	This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

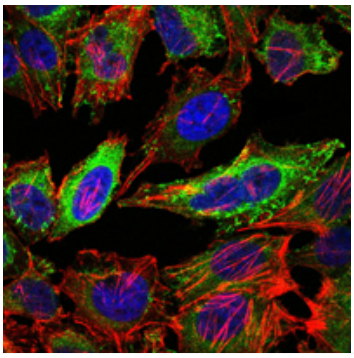
Products Images



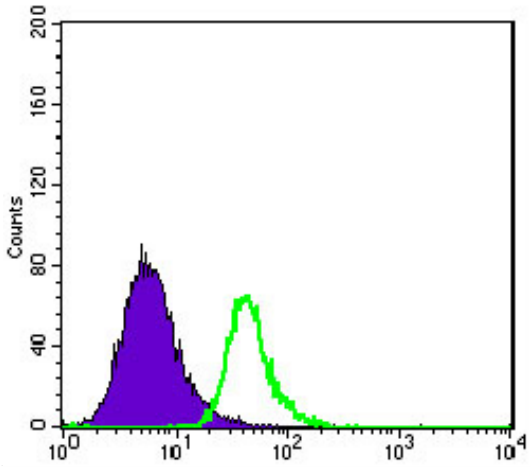
Western Blot analysis using ABCG2 Monoclonal Antibody against NIH/3T3 (1) and Cos7 (2) cell lysate.



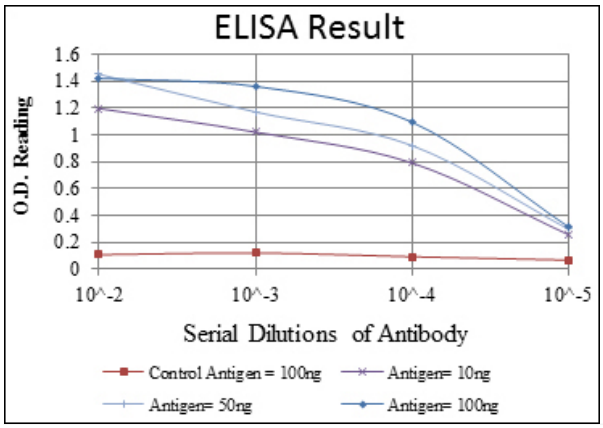
Immunohistochemistry analysis of paraffin-embedded bladder cancer tissues (left) and skeletal muscle tissues (right) with DAB staining using ABCG2 Monoclonal Antibody.



Immunofluorescence analysis of Hela cells using ABCG2 Monoclonal Antibody (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.



Flow cytometric analysis of HepG2 cells using ABCG2 Monoclonal Antibody (green) and negative control (purple).


ELISA Result
O.D. Reading
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
10^-2
10^-3
10^-4
10^-5
Serial Dilutions of Antibody
Control Antigen = 100ng
Antigen= 10ng
Antigen= 50ng
Antigen= 100ng