



ABCG2 Polyclonal Antibody

Catalog No	BYab-00659
Isotype	IgG
Reactivity	Human;Rat;Mouse;
Applications	WB;IHC;IF;ELISA
Gene Name	ABCG2
Protein Name	ATP-binding cassette sub-family G member 2
Immunogen	The antiserum was produced against synthesized peptide derived from human ABCG2. AA range:289-338
Specificity	ABCG2 Polyclonal Antibody detects endogenous levels of ABCG2 protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	Western Blot: 1/500 - 1/2000. IHC-p: 1:100-300 ELISA: 1/20000. IF 1:100-300 Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	ABCG2; ABCP; BCRP; BCRP1; MXR; ATP-binding cassette sub-family G member 2; Breast cancer resistance protein; CDw338; Mitoxantrone resistance-associated protein; Placenta-specific ATP-binding cassette transporter; CD antigen CD338
Observed Band	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

Nanjing BYabscience technology Co.,Ltd



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

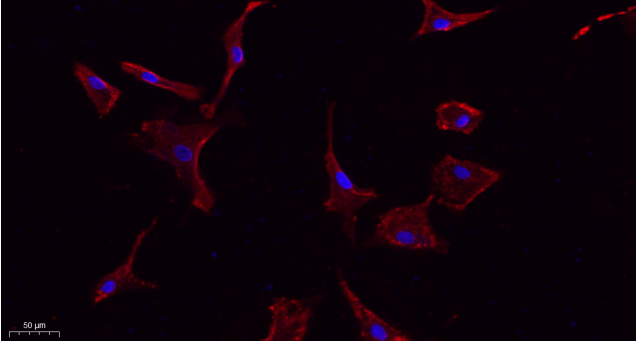
Avoid repeated freezing and thawing!

Usage suggestions

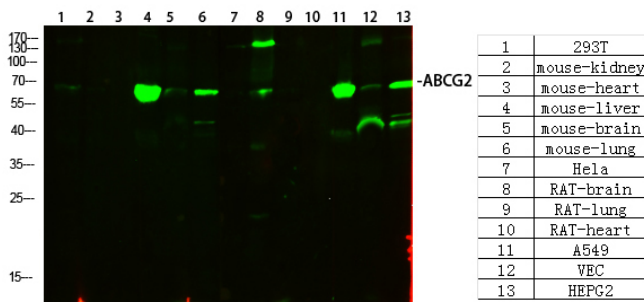
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



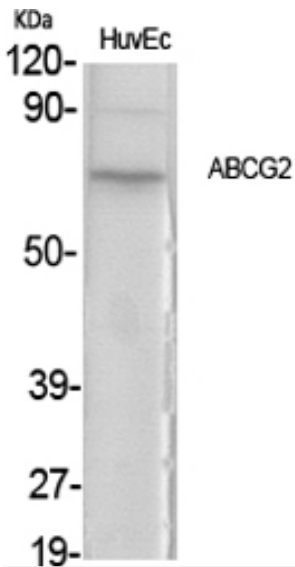
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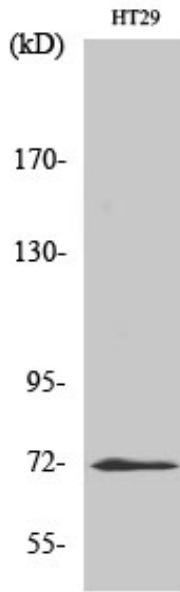
Immunofluorescence analysis of A549. 1, primary Antibody (red) was diluted at 1:200 (4°C overnight). 2, Goat Anti Rabbit IgG (H&L) - Alexa Fluor 594 Secondary antibody was diluted at 1:1000 (room temperature, 50min). 3, Picture B: DAPI (blue) 10min.



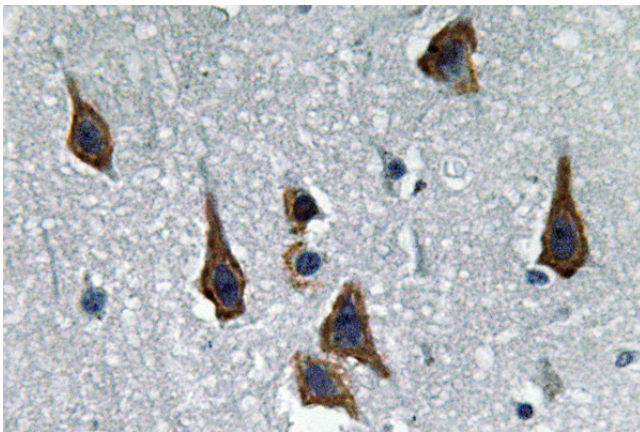
Western Blot analysis of various cells using primary antibody diluted at 1:1000 (4°C overnight). Secondary antibody: Goat Anti-rabbit IgG IRDye 800 (diluted at 1:5000, 25°C, 1 hour)



Western Blot analysis of various cells using ABCG2 Polyclonal Antibody



Western Blot analysis of HT29 cells using ABCG2 Polyclonal Antibody



Immunohistochemistry analysis of paraffin-embedded human brain, using ABCG2 Antibody. The picture on the right is blocked with the ABCG2 peptide.