Store at -20°C

#4477

ABCG2 Antibody

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not For Use In Diagnostic Procedures.

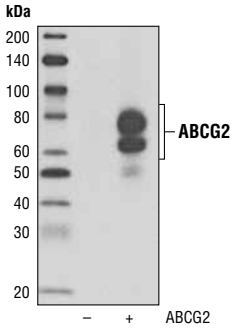
Entrez-Gene ID #9429
Swiss-Prot Acc. #Q9UNQ0

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W Endogenous	H, M, R, (Mk, B, X, Dg)	65-80 kDa	Rabbit**

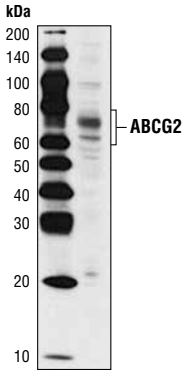
Background: ABCG2 (BCRP1/ABCP/MXR) is a member of the ATP-binding cassette transporter family that functions as ATP-dependent transporters for a wide variety of chemical compounds and are associated with drug-resistance in cancer cells (1-6). ABCG2 is a heavily glycosylated transmembrane protein with six transmembrane spanning regions consistent with it functioning as a half-transporter. The ABC family can exist as either full-length transporters or as half-transporters that form functional transporters through homo- or heterodimerization. High expression of ABCG2 was found in placenta as well as cell lines selected for resistance to a number of chemotherapeutic drugs, including mitoxantrone, doxorubicin, topotecan and flavopiridol. In rodents, the highest expression of ABCG2 was found in kidney (8). ABCG2 expression has also been observed in stem cell populations, particularly in hematopoietic and neuronal stem cells and is downregulated with differentiation (9-12).

Specificity/Sensitivity: ABCG2 Antibody detects endogenous levels of total ABCG2 protein.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Thr180 of human ABCG2 protein, which lies within the intracellular region of ABCG2. Antibodies were purified by protein A and peptide affinity chromatography.



Western blot analysis of extracts from COS-7 cells, mock transfected (-) or transfected with a construct overexpressing human ABCG2 (+), using ABCG2 Antibody.



Western blot analysis of extracts from RPMI 8226 cells using ABCG2 Antibody.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. *Do not aliquot the antibody.*

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:
Western blotting 1:1000

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

Background References:

(1) Doyle, L.A. and Ross, D.D. (2003) *Oncogene* 22, 7340-58.
(2) Allen, J.D. et al. (1999) *Cancer Res* 59, 4237-41.
(3) Doyle, L.A. et al. (1998) *Proc Natl Acad Sci U S A* 95, 15665-70.
(4) Allikmets, R. et al. (1998) *Cancer Res* 58, 5337-9.
(5) Miyake, K. et al. (1999) *Cancer Res* 59, 8-13.
(6) Robey, R.W. et al. (2001) *Clin Cancer Res* 7, 145-52.
(7) Zhou, S. et al. (2001) *Nat Med* 7, 1028-34.
(8) Honscha, W. et al. (2000) *Hepatology* 31, 1296-304.
(9) Scharenberg, C.W. et al. (2002) *Blood* 99, 507-12.
(10) Islam, M.O. et al. (2005) *Neurosci Res* 52, 75-82.
(11) Bunting, K.D. (2002) *Stem Cells* 20, 11-20.
(12) Scharenberg, C.W. et al. (2002) *Blood* 99, 507-12.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide
Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **Ce**—C. elegans **Hr**—horse **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.