

#42078 Store at -20°C

**ABCG2 (D5V2K) XP® Rabbit mAb****Cell Signaling**  
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**For Research Use Only. Not for Use in Diagnostic Procedures.**

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP, IHC-P	H M	Endogenous	65-80	Rabbit IgG	#Q9UNQ0	9429

**Product Usage Information****Application**

Western Blotting  
Immunoprecipitation  
Immunohistochemistry (Paraffin)

**Dilution**

1:1000  
1:50  
1:175 - 1:700

**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #61474.

**Specificity / Sensitivity**

ABCG2 (D5V2K) XP® Rabbit mAb recognizes endogenous levels of total ABCG2 protein.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Asp175 of human ABCG2 protein.

**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 (9-11).

**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.
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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.

**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

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

**Applications Key**

**WB:** Western Blotting **IP:** Immunoprecipitation **IHC-P:** Immunohistochemistry (Paraffin)

**Cross-Reactivity Key**

**H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **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  
**GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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