

ABCG2 (D5V2K) XP[®] Rabbit mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, 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.
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.

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

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

Cross-Reactivity Key

H: Human **M:** Mouse

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