

Exportin 5 (D7W6W) Rabbit mAb

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Applications: W, IP	Reactivity: H M Mk	Sensitivity: Endogenous	MW (kDa): 136	Source/Isotype: Rabbit IgG	UniProt ID: #Q9HAV4	Entrez-Gene Id: 57510
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Product Usage Information**Application**

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:100

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.

Specificity/Sensitivity

Exportin 5 (D7W6W) Rabbit mAb recognizes endogenous levels of total exportin 5 protein.

Species predicted to react based on 100% sequence homology

Hamster, Dog, Guinea Pig

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human exportin 5 protein.

Background

Import and export through the nuclear envelope (NE) via facilitated translocation is important for many cellular processes including protein synthesis and miRNA biogenesis (1). Exportin 5 (XPO5) is a member of the importin β family of proteins (2) and functions in tRNA export in a sequence dependent fashion. More recently, it has been shown to export pre-miRNA by a RanGTPase-driven process from the nucleus to the cytoplasm, where pre-miRNA processing occurs to produce mature miRNAs (1,3). Study of the miRNA biosynthesis pathway is essential toward understanding the process of oncogenesis as global downregulation of miRNAs and the resulting alterations in expression of tumor suppressor and oncogenic proteins is a common phenotype of cancers cells (3,4). Research studies have shown that disruption of exportin 5 functions in many types of cancers including breast and lung, where pre-miRNA accumulates in the nucleus and miRNA maturation is impaired (2,3).

Background References

1. Bohnsack, M.T. et al. (2004) *RNA* 10, 185-91.
2. Leaderer, D. et al. (2011) *Int J Mol Epidemiol Genet* 2, 9-18.
3. Melo, S.A. and Esteller, M. (2011) *Cell Cycle* 10, 922-5.
4. Melo, S.A. et al. (2010) *Cancer Cell* 18, 303-15.

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

Cross-Reactivity Key

H: Human **M:** Mouse **Mk:** Monkey

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