

Store at
-20°C
#65939**RRM2 (E7Y9J) XP® Rabbit mAb**

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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:
W, W-S, IHC-P, IF-IC	H	Endogenous	45	Rabbit IgG	#P31350	6241

Product Usage Information**Application**

Western Blotting
Simple Western™
Immunohistochemistry (Paraffin)
Immunofluorescence (Immunocytochemistry)

Dilution

1:1000
1:50 - 1:250
1:100 - 1:400
1:400 - 1:1600

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 #54033.

Specificity/Sensitivity

RRM2 (E7Y9J) XP® Rabbit mAb recognizes endogenous levels of total RRM2 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro55 of human RRM2 protein.

Background

Ribonucleotide reductase catalyzes the rate-limiting step in the synthesis of deoxynucleotide triphosphates (dNTPs). Ribonucleoside-diphosphate reductase subunit M2 (RRM2) is frequently overexpressed and associated with poor prognosis in multiple human cancers (1). RRM2/AKT/NF-κB signaling pathway is implicated in tumor invasiveness in gastric cancer (2). RRM2 is highly expressed in melanoma, and correlated with poor prognosis in BRAF-mutant melanoma. Knockdown of RRM2 stabilized the transient response of cells and patient-derived xenograft (PDX) model system to BRAF inhibition (3). Cyclin-dependent kinase (CDK) mediated phosphorylation of RRM2 at Thr33 targets the protein for degradation, allowing cells to maintain balanced dNTP pools (4).

Background References

1. Furuta, E. et al. (2010) *Biochim Biophys Acta* 1805, 141-52.
2. Zhong, Z. et al. (2016) *Pharmazie* 71, 280-4.
3. Fatkhutdinov, N. et al. (2016) *Mol Cancer Res* 14, 767-75.
4. D'Angiolella, V. et al. (2012) *Cell* 149, 1023-34.

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 **W-S:** Simple Western™ **IHC-P:** Immunohistochemistry (Paraffin) **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: Human

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