

**hnRNP Q/R (D18B2) Rabbit mAb**

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

<b>Applications:</b> W, IP	<b>Reactivity:</b> H M R Mk	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 65-82	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #O43390, #O60506	<b>Entrez-Gene Id:</b> 10236, 10492
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**Product Usage Information****Application**

Western Blotting  
Immunoprecipitation

**Dilution**

1:1000  
1:50

**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**

hnRNP Q/R (D18B2) Rabbit mAb recognizes endogenous levels of total hnRNP Q and hnRNP R proteins.

**Source / Purification**

Monoclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Lys371 of human hnRNP Q protein.

**Background**

Heterogeneous nuclear ribonucleoprotein Q and R belong to a family of hnRNP proteins that are involved in RNA binding, RNA biosynthesis, and mRNA transport from the nucleus to the cytoplasm (1-3). These two proteins are encoded by different genes but have 83% homology. hnRNP Q has three alternative splice variants (hnRNP Q1-3) (1-3). Methylation of carboxy-terminal arginine residues is required for nuclear localization (4). hnRNP Q binds to AU-rich mRNA in conjunction with AUF1 and regulates mRNA decay (5). hnRNP Q isoforms play a crucial role in mediating nuclear function of survival of motor neuron (SMN) complex (6,7) and modulating RNA biosynthesis and hepatitis C virus replication (8). hnRNP R was identified recently and its function is still under investigation (9), however hnRNP R does not duplicate the biological function of hnRNP Q. Both hnRNP Q and R are present in cytoplasmic mRNP granules containing untranslated mRNAs (10) and both interact with SMN (6).

**Background References**

1. Dreyfuss, G. et al. (1993) *Annu Rev Biochem* 62, 289-321.
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3. Krecic, A.M. and Swanson, M.S. (1999) *Curr Opin Cell Biol* 11, 363-71.
4. Passos, D.O. et al. (2006) *Biochem Biophys Res Commun* 346, 517-25.
5. Moraes, K.C. et al. (2003) *Biol Chem* 384, 25-37.
6. Mourelatos, Z. et al. (2001) *EMBO J* 20, 5443-52.
7. Rossoll, W. et al. (2002) *Hum Mol Genet* 11, 93-105.
8. Liu, H.M. et al. (2009) *Virology* 386, 249-56.
9. Hassfeld, W. et al. (1998) *Nucleic Acids Res* 26, 439-45.
10. Carty, S.M. and Greenleaf, A.L. (2002) *Mol Cell Proteomics* 1, 598-610.

**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 nonfat dry milk, 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 **R:** Rat **Mk:** Monkey

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