

hnRNP A2/B1 (2A2) Mouse mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H Mk	Endogenous	34 to 36	Mouse IgG1	#P22626	3181

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

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 A2/B1 (2A2) Mouse mAb detects endogenous levels of total hnRNP A2/B1 proteins. This antibody does not cross-react with other proteins.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a human hnRNP B1 protein.

Background

Heterogeneous nuclear ribonucleoprotein A2/B1 (hnRNP A2/B1) is a member of the hnRNP A/B family of related RNA-binding proteins that bind pre-mRNA and are involved in the processing, metabolism, and transport of nuclear pre-mRNA transcripts (1). Alternative splicing produces transcripts that encode two homologous hnRNP proteins, hnRNPA2 and hnRNBPB1, from a single gene sequence (2). Studies demonstrate hnRNP A2/B1 splicing repression across multiple targets (3,4) and that both proteins can bind and protect telomere repeat sequences from DNase digestion (5,6). Altered expression of hnRNP B1 is seen in several forms of cancer, including squamous cell carcinoma, adenocarcinoma, and various forms of lung cancer (7). Overexpression of hnRNP B1 may be associated with inhibition of DNA-PK activity and impaired DNA repair during early stages of cancer development (8). Autoantigens to hnRNP A2/B1 (termed RA33) are associated with rheumatoid arthritis, systemic lupus erythematosus, and mixed connective tissue disease (9-11).

Background References

1. Myer, V.E. and Steitz, J.A. (1995) *RNA* 1, 171-82.
2. Koza, T. et al. (1995) *Genomics* 25, 365-71.
3. Clower, C.V. et al. (2010) *Proc Natl Acad Sci USA* 107, 1894-9.
4. Moran-Jones, K. et al. (2009) *Cancer Res* 69, 9219-27.
5. Moran-Jones, K. et al. (2005) *Nucleic Acids Res* 33, 486-96.
6. Kamma, H. et al. (2001) *Biochem Biophys Res Commun* 280, 625-30.
7. Hamasaki, M. et al. (2001) *Anticancer Res* 21, 979-84.
8. Iwanaga, K. et al. (2005) *Biochem Biophys Res Commun* 333, 888-95.
9. Fritsch, R. et al. (2002) *J Immunol* 169, 1068-76.
10. Fritsch-Stork, R. et al. (2006) *Arthritis Res Ther* 8, R118.
11. Skrinier, K. et al. (1997) *J Clin Invest* 100, 127-35.

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

Cross-Reactivity Key

H: Human **Mk:** Monkey

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