Revision 1

Store at -20C

#12382

AUF1/hnRNP D (D6O4F) Rabbit mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP, IHC-P	H	Endogenous	37-48	Rabbit IgG	#Q14103	3184

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50
Immunohistochemistry (Paraffin)	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

AUF1/hnRNP D (D6O4F) Rabbit mAb recognizes endogenous levels of total AUF1 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human AUF1 protein.

Background

AU-rich element RNA binding protein 1 (AUF1) is also known as heterogeneous ribonucleoprotein D (hnRNP D). AUF1 binds to the AU rich element (ARE) of target mRNA and regulates mRNA decay (1,2). It has a broad range of target genes including IL-1, IL-2, IL-3, Myc, TNF-α, and cyclin D1 (2). Binding of AUF1 to Myc mRNA also affects translation of Myc (3). Recent studies have provided evidence that AUF1 is also involved in the regulation of transcription. AUF1 binds to the promoters of various genes including complement receptor 2 (4), enkephalin (5), and α-fetoprotein (6). AUF1 also binds to the telomerase catalytic subunit Tert promoter and the G-rich telomeric repeat, thus regulating telomere maintenance and normal aging (7,8). AUF1 has four isoforms produced by alternative splicing of a single transcript: p37, p40, p42, and p45 (9,10). All AUF1 isoforms shuttle between the nucleus and cytoplasm (11, 12). These isoforms have distinct localization and bind to different target mRNAs that contribute to the diversity of AUF1 function (2).

Background References

1. Brewer, G. (1991) *Mol Cell Biol* 11, 2460-6.
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3. Liao, B. et al. (2007) *Nat Struct Mol Biol* 14, 511-8.
4. Tolnay, M. et al. (2000) *Biochem J* 348 Pt 1, 151-8.
5. Dobi, A. et al. (2006) *J Biol Chem* 281, 28889-900.
6. Jiao, R. et al. (2006) *J Cell Biochem* 98, 1257-70.
7. Eversole, A. and Maizels, N. (2000) *Mol Cell Biol* 20, 5425-32.
8. Pont, A.R. et al. (2012) *Mol Cell* 47, 5-15.
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11. Zhang, W. et al. (1993) *Mol Cell Biol* 13, 7652-65.
12. Sarkar, B. et al. (2003) *J Biol Chem* 278, 20700-7.

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 **IHC-P:** Immunohistochemistry (Paraffin)

Cross-Reactivity Key

H: Human

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Limited Uses

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