

**Argonaute 1 (D84G10) XP<sup>®</sup> 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, IP, IHC-P	H M R Mk	Endogenous	97	Rabbit IgG	#Q9UL18	26523

**Product Usage Information****Application**

Western Blotting  
Immunoprecipitation  
Immunohistochemistry (Paraffin)

**Dilution**

1:1000  
1:50  
1:500

**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**

Argonaute 1 (D84G10) XP<sup>®</sup> Rabbit mAb detects endogenous levels of total Argonaute 1 protein.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to the sequence around Ile392 of human Argonaute 1 protein.

**Background**

Small non-coding RNAs are important regulators of gene expression in higher eukaryotes (1,2). Several classes of small RNAs, including short interfering RNAs (siRNAs) (3), microRNAs (miRNAs) (4), and Piwi-interacting RNAs (piRNAs) (5), have been identified. miRNAs are about 21 nucleotides in length and have been implicated in many cellular processes, such as development, differentiation, and stress response (1,2). miRNAs regulate gene expression by modulating mRNA translation or stability (2). miRNAs function together with the protein components in the complexes called micro-ribonucleoproteins (miRNPs) (2). Among the most important components in these complexes are Argonaute proteins (1,2). There are four members in the mammalian Argonaute family, and only Argonaute 2 (Ago2) possesses the Slicer endonuclease activity (1,2). Argonaute proteins participate in the various steps of miRNA-mediated gene silencing, such as repression of translation and mRNA turnover (1).

**Background References**

1. Peters, L. and Meister, G. (2007) *Mol Cell* 26, 611-23.
2. Filipowicz, W. et al. (2008) *Nat Rev Genet* 9, 102-14.
3. Caplen, N.J. et al. (2001) *Proc Natl Acad Sci USA* 98, 9742-7.
4. Mourelatos, Z. et al. (2002) *Genes Dev* 16, 720-8.
5. Girard, A. et al. (2006) *Nature* 442, 199-202.

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

**Cross-Reactivity Key**

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

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