

Argonaute 4 (D10F10) Rabbit mAb



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For Research Use Only. Not For Use In Diagnostic Procedures.

Applications W, IP Endogenous	Species Cross-Reactivity* H, M, R, Mk	Molecular Wt. 97 kDa	Isotype Rabbit IgG**
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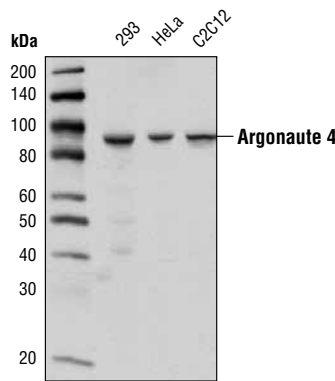
Background: Small non-coding RNAs are important regulators of gene expression in higher eukaryotes (1,2). Several classes of small RNAs, including short interfering RNAs (siRNAs) (3), microRNAs (miRNAs) (4), and Piwi-interacting RNAs (piRNAs) (5), have been identified. MicroRNAs are about 21 nucleotides in length and have been implicated in many cellular processes such as development, differentiation, and stress response (1,2). MicroRNAs regulate gene expression by modulating mRNA translation or stability (2). MicroRNAs 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 microRNA-mediated gene silencing such as repression of translation and mRNA turnover (1).

Specificity/Sensitivity: Argonaute 4 (D10F10) Rabbit mAb recognizes endogenous levels of total Argonaute 4 protein.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human Argonaute 4 protein.

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.



Western blot analysis of extracts from various cell lines using Argonaute 4 (D10F10) Rabbit mAb.

Entrez-Gene ID #192670
Swiss-Prot Acc. #Q9HCK5

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.

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:50

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.