

#2897 Store at -20°C

# Argonaute 2 (C34C6) Rabbit mAb

✓ 100 µl (10 western blots)

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Entrez-Gene ID # 27161  
Swiss-Prot Acc. # Q9UKV8

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IP Endogenous	H, M, R	97 kDa	Rabbit IgG**

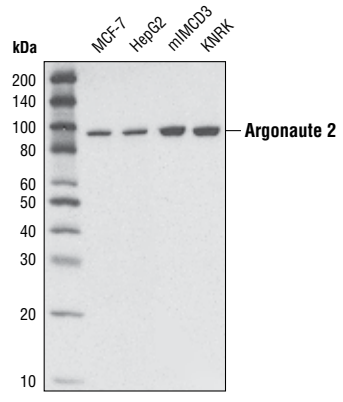
**Background:** Small non-coding RNAs are important regulators of gene expression in higher eukaryotes (1,2). Several classes of small RNAs, including short interfering RNAs (siRNAs) (3), microRNAs (miRNAs) (4) and Piwi-interacting RNAs (piRNAs) (5), have been identified. MicroRNAs are about 21 nucleotides long 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 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 2 (C34C6) Rabbit mAb detects endogenous levels of total Argonaute 2 protein.

**Source/Purification:** Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to mouse Argonaute 2.

### 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 types using Argonaute 2 (C34C6) Rabbit mAb.

**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](http://www.cellsignal.com).

Please visit [www.cellsignal.com](http://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.**

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**Applications Key:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide  
**Species Cross-Reactivity Key:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine  
 Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.