

## Anti-Argonaute-2 Antibody (6B282)

### Product Details

Ig Type:	Rabbit IgG
Reactivity:	Mouse
Conjugation:	Unconjugated
Clone:	6B282
Purification:	Protein A

### Applications

1. Immunochemical staining of AGO2 in mouse brain with rabbit monoclonal antibody (1:200, formalin-fixed paraffin embedded sections).
2. AGO2 was immunoprecipitated using:
  - Lane A:0.5 mg K562 Whole Cell Lysate.
  - Lane B:0.5 mg Raw264.7 Whole Cell Lysate.
  - 2  $\mu$ L anti-Mouse AGO2 rabbit monoclonal antibody and 15  $\mu$ l of 50 % Protein G agarose.
  - Primary antibody:
    - Anti-Mouse AGO2 rabbit monoclonal antibody, at 1:100 dilution.
  - Secondary antibody:
    - Dylight 800-labeled antibody to rabbit IgG (H+L), at 1:5000 dilution.
  - Developed using the odyssey technique.
  - Performed under reducing conditions.
  - Predicted band size: 100 kDa.
  - Observed band size: 100 kDa.

- Verified Activity:
3. Immunochemical staining of AGO2 in human brain with rabbit monoclonal antibody at 1:200 dilution, formalin-fixed paraffin embedded sections.
  4. AGO2 was immunoprecipitated using:
    - Lane A:0.5 mg Hela Whole Cell Lysate.
    - Lane B:0.5 mg MCF-7 Whole Cell Lysate.
    - Lane C:0.5 mg HEK293 Whole Cell Lysate.
    - 4  $\mu$ L anti-AGO2 rabbit monoclonal antibody and 60  $\mu$ g of Immunomagnetic beads Protein A/G.
    - Primary antibody:
      - Anti-AGO2 rabbit monoclonal antibody, at 1:100 dilution.
    - Secondary antibody:
      - Goat Anti-Rabbit IgG (H+L)/HRP at 1/10000 dilution.
    - Developed using the ECL technique.
    - Performed under reducing conditions.
    - Predicted band size: 100 kDa.
    - Observed band size:100 kDa

## A DRUG SCREENING EXPERT

---

Application: ELISA,IHC-P,IP

Recommended ELISA: 1:5000-1:10000; IHC-P: 1:100-1:500; IP: 1-4 µL/mg of lysate

---

### Properties

Stability & Storage: Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. Preservative-Free.

Shipping: Shipping with blue ice.

---

### Antigen Details

Immunogen: Recombinant Protein: Mouse AGO2 protein (TMPY-02130)

Antigen Species: Mouse

Synonyms: KIAA4215;1110029L17Rik;argonaute RISC catalytic component 2;AL022874;Gm10365;Gerp95; mKIAA4215;ENSMUSG00000072493;2310051F07Rik;Eif2c2;AW546247;AI225898;Ago2

---

### Research Background

Argonaute 2 (AGO2), also known as Eukaryotic translation initiation factor 2C2 (EIF2C2), belongs to the Argonaute family, AGO subfamily, which is a component of the RNA-induced silencing complex (RISC) and mediates small interfering RNA (siRNA)-directed mRNA cleavage and microRNA translational suppression. AGO2 protein is the catalytic engine of mammalian RNAi. It contains a PIWI domain that is structurally related to RNases H and possibly shares with them a two-metal-ion catalysis mechanism. Human AGO2 was unable to cleave preformed RNA duplexes and exhibited weaker binding affinity for RNA duplexes compared with the single strand RNA. The enzyme exhibited greater RNase H activity in the presence of Mn<sup>2+</sup> compared with Mg<sup>2+</sup>. Human AGO2 exhibited weaker binding affinities and reduced cleavage activities for antisense RNAs with either a 5'-terminal hydroxyl or abasic nucleotide. In mouse hematopoiesis, AGO2 controls early development of lymphoid and erythroid cells. AGO2 is a highly specialized member of the Argonaute family with an essential nonredundant Slicer-independent function within the mammalian miRNA pathway. AGO2 regulates dFMR1 expression, and the relationship between dFMR1 and AGO2 was defined by their physical interaction and co-regulation of downstream targets. AGO2 and dFMR1 are also connected through a regulatory relationship. AGO2 is a regulator of dFMR1 expression and have clarified an important developmental role for AGO2 in the nervous system and germ line that requires dFMR1 function. In addition, AGO2 is regulated at both the transcriptional and posttranslational level, and also implicate AGO2 and enhanced micro-RNA activity in the tumorigenic progression of breast cancer cell lines.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481

---