

# **RKHD3** Antibody

Catalog # ASC11422

# **Product Information**

Application	WB, IF, E
Primary Accession	<u>Q6ZN04</u>
Other Accession	<u>NP_780575</u> , <u>47716512</u>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	58832
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	RKHD3 antibody can be used for detection of EPAC1 by Western blot at 1

#### **Additional Information**

Gene ID Other Names	84206 RNA-binding protein MEX3B, RING finger and KH domain-containing protein 3, RING finger protein 195, MEX3B, KIAA2009, RKHD3, RNF195
Target/Specificity	MEX3B; This antibody is specific for RKHD3 and will not recognize the other RKHD3 family of proteins.
Reconstitution & Storage	RKHD3 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	RKHD3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

#### **Protein Information**

Name	MEX3B
Synonyms	KIAA2009, RKHD3, RNF195
Function	RNA-binding protein. May be involved in post-transcriptional regulatory mechanisms.
Cellular Location	Nucleus. Cytoplasm. Cytoplasm, P-body. Cytoplasmic granule. Note=Predominantly expressed in the cytoplasm and shuttles between the cytoplasm and the nucleus through the CRM1 export pathway. Localization to

**Tissue Location** 

Highest levels found in fetal brain and testis. Detected in the adult intestinal epithelium, specifically in goblet cell at protein level.

# Background

RKHD3 Antibody: Rkhd3, also known as MEX3B is a member of a novel family of four homologous human MEX3 proteins each containing two heterogeneous nuclear ribonucleoprotein K homology (KH) domains and one carboxy-terminal RING finger module. MEX3 proteins, including Rkhd3, are phosphoproteins that bind RNA through their KH domains and shuttle between the nucleus and the cytoplasm via the CRM1 export pathway. These proteins are a novel family of evolutionarily conserved RNA-binding proteins, differentially recruited to P bodies and potentially involved in post-transcriptional regulatory mechanisms. Rkhd3 is thought to act as a mechanism to fine-tune mRNA regulation in early Xenopus development, and with Rkhd4, but not Rkhd1, will co-localize with both the hDcp1a decapping factor and Argonaute (Ago) proteins in processing bodies (P bodies), recently characterized as centers of mRNA turnover.

# References

Takada H, Kawana T, Ito Y, et al. The RNA-binding protein Mex3b has a fine-tuning system for mRNA regulation in early Xenopus development. Dev. 2009; 136:2413-22

Draper BW, Mello CC, Bowerman B, et al. MEX-3 is a KH domain protein that regulates blastomere identity in early C. elegans embryos. Cell 1996; 87:205-16.

Liu J, Valencia-Sanchez MA, Hannon GJ, et al. MicroRNA-dependent localization of targeted mRNAs to mammalian P-bodies. Nat. Cell Biol 2005; 7:719-23.

Buchet-Poyau K, Courchet J, Le Hir H, et al. Identification and characterization of human Mex-3 proteins, a novel family of evolutionarily conserved RNA-binding proteins differentially localized to processing bodies. Nucleic Acids Res. 2007; 35:1289-300.

### Images



Western blot analysis of RKHD3 in mouse skeletal muscle tissue lysate with RKHD3 antibody at 1 µg/mL.

Immunofluorescence of RKHD3 in mouse skeletal muscle cells with RKHD3 antibody at 20  $\mu g/mL$ 

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