

### **RNF40 Polyclonal Antibody**

Purified Rabbit Polyclonal Antibody (Pab) **Catalog # AP59168** 

## **Specification**

### **RNF40 Polyclonal Antibody - Product Information**

IHC-P, IHC-F, IF, E Application

**Primary Accession** 075150

Reactivity Rat, Pig, Dog, Bovine Host Rabbit Clonality **Polyclonal** Calculated MW 110 KDa

**Physical State** Liquid Immunogen KLH conjugated synthetic peptide derived

from human RNF40

**Epitope Specificity** 901-1001/1001

Isotype laG **Purity** 

0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.

SUBCELLULAR LOCATION Nucleus.

**SIMILARITY** Belongs to the BRE1 family. Contains 1

RING-type zinc finger.

**SUBUNIT** Homodimer, Component of the RNF20/40 complex at least composed of 2 copies of

RNF20/BRE1A, 2 copies of RNF40/BRE1B and UBE2E1/UBCH6. Interacts with RB1 and

WAC.

Important Note This product as supplied is intended for research use only, not for use in human,

therapeutic or diagnostic applications.

# **Background Descriptions**

affinity purified by Protein A

Buffer

Ubiquitination is an important mechanism through which three classes of enzymes act in concert to target short-lived or abnormal proteins for destruction. The three classes of enzymes involved in ubiquitination are the ubiquitin-activating enzymes (E1s), the ubiquitin-conjugating enzymes (E2s) and the ubiquitin-protein ligases (E3s). RNF40 (RING finger protein 40), also known as BRE1B, Staring or RBP95, is a 1,001 amino acid nuclear protein that contains one RING-type zinc finger. Expressed ubiquitously with highest expression in heart, testis and pancreas, RNF40 functions as an E3 ubiquitin-protein ligase that regulates the monoubiquitination and subsequent degradation of select residues on target proteins, such as Histone H2B and Syntaxin 1. In addition, RNF40 forms a ubiquitin ligase complex with UBCH6 (an E2 enzyme) and together, these proteins play a crucial role in regulation of the histone code. Four isoforms of RNF40 exist due to alternative splicing events.

## **RNF40 Polyclonal Antibody - Additional Information**

**Gene ID 9810** 



#### **Other Names**

E3 ubiquitin-protein ligase BRE1B, BRE1-B, 2.3.2.27, 95 kDa retinoblastoma-associated protein, RBP95, RING finger protein 40, RING-type E3 ubiquitin transferase BRE1B, RNF40, BRE1B, KIAA0661

### Target/Specificity

Ubiquitously expressed. Expressed at higher level in testis, heart and pancreas, while it is only weakly expressed in lung, skeletal muscle and small intestine.

### **Dilution**

<span class ="dilution\_IHC-P">IHC-P~~N/A</span><br \> <span class
="dilution\_IHC-F">IHC-F~~N/A</span><br \> <span class
="dilution\_IF">IF~~1:50~200</span><br \> <span class = "dilution\_E">E~~N/A</span>

#### **Storage**

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

## **RNF40 Polyclonal Antibody - Protein Information**

Name RNF40

Synonyms BRE1B, KIAA0661

#### **Function**

Component of the RNF20/40 E3 ubiquitin-protein ligase complex that mediates monoubiquitination of 'Lys-120' of histone H2B (H2BK120ub1). H2BK120ub1 gives a specific tag for epigenetic transcriptional activation and is also prerequisite for histone H3 'Lys-4' and 'Lys-79' methylation (H3K4me and H3K79me, respectively). It thereby plays a central role in histone code and gene regulation. The RNF20/40 complex forms a H2B ubiquitin ligase complex in cooperation with the E2 enzyme UBE2A or UBE2B; reports about the cooperation with UBE2E1/UBCH are contradictory. Required for transcriptional activation of Hox genes.

#### **Cellular Location**

Nucleus.

#### **Tissue Location**

Ubiquitously expressed. Expressed at higher level in testis, heart and pancreas, while it is only weakly expressed in lung, skeletal muscle and small intestine

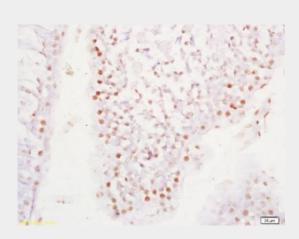
### RNF40 Polyclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

# RNF40 Polyclonal Antibody - Images





Tissue/cell: rat testis tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-RNF40 Polyclonal Antibody, Unconjugated(bs-9170R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining