

# RNF40 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP59168

## Product Information

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<b>Application</b>	IHC-P, IHC-F, IF, E
<b>Primary Accession</b>	<a href="#">O75150</a>
<b>Reactivity</b>	Rat, Pig, Dog, Bovine
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Calculated MW</b>	113678
<b>Physical State</b>	Liquid
<b>Immunogen</b>	KLH conjugated synthetic peptide derived from human RNF40
<b>Epitope Specificity</b>	901-1001/1001
<b>Isotype</b>	IgG
<b>Purity</b>	affinity purified by Protein A
<b>Buffer</b>	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
<b>SUBCELLULAR LOCATION</b>	Nucleus.
<b>SIMILARITY</b>	Belongs to the BRE1 family. Contains 1 RING-type zinc finger.
<b>SUBUNIT</b>	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.
<b>Important Note</b>	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
<b>Background Descriptions</b>	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.

## Additional Information

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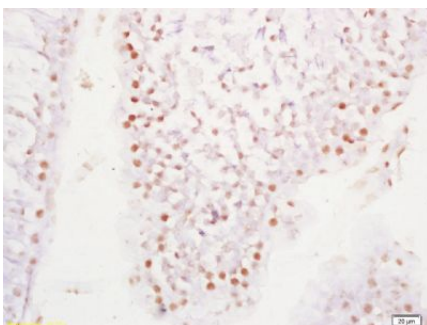
<b>Gene ID</b>	9810
<b>Other Names</b>	E3 ubiquitin-protein ligase BRE1B, BRE1-B, 2.3.2.27, 95 kDa retinoblastoma-associated protein, RBP95, RING finger protein 40, RING-type E3 ubiquitin transferase BRE1B, RNF40, BRE1B, KIAA0661

<b>Target/Specificity</b>	Ubiquitously expressed. Expressed at higher level in testis, heart and pancreas, while it is only weakly expressed in lung, skeletal muscle and small intestine.
<b>Dilution</b>	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:50-200,ELISA=1:5000-10000
<b>Format</b>	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
<b>Storage</b>	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.

## Protein Information

<b>Name</b>	RNF40
<b>Synonyms</b>	BRE1B, KIAA0661
<b>Function</b>	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.
<b>Cellular Location</b>	Nucleus.
<b>Tissue Location</b>	Ubiquitously expressed. Expressed at higher level in testis, heart and pancreas, while it is only weakly expressed in lung, skeletal muscle and small intestine

## 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(AP59168) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.