

**RNF20 Antibody**  
**Catalog # ASC11659****Specification**

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**RNF20 Antibody - Product Information**

Application	WB, IHC-P, IF, E
Primary Accession	<a href="#">Q5VTR2</a>
Other Accession	<a href="#">NP_062538</a> , <a href="#">34878777</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	Predicted: 99, 107 kDa
Application Notes	Observed: 100, 110 kDa KDa RNF20 antibody can be used for detection of RNF20 by Western blot at 1 - 2 µg/mL.

**RNF20 Antibody - Additional Information**

Gene ID **56254**  
**Target/Specificity**  
RNF20; Multiple isoforms of RNF20 are known to exist.

**Reconstitution & Storage**

RNF20 antibody can be stored at 4°C for three months and -20°C, stable for up to one year.

**Precautions**

RNF20 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**RNF20 Antibody - Protein Information**

**Name** RNF20

**Synonyms** BRE1A

**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. Recruited to the MDM2 promoter, probably by being recruited by p53/TP53, and thereby acts as a transcriptional coactivator. Mediates the polyubiquitination of isoform 2 of PA2G4 in cancer cells leading to its proteasome-mediated degradation.

**Cellular Location**

Nucleus

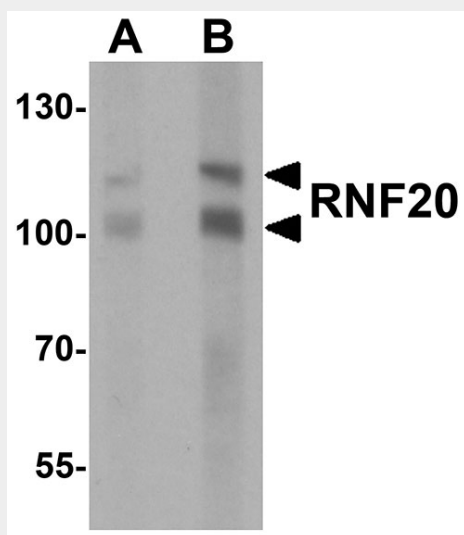
**Tissue Location**

Expressed in the normal brain and also in malignant gliomas (at protein level).

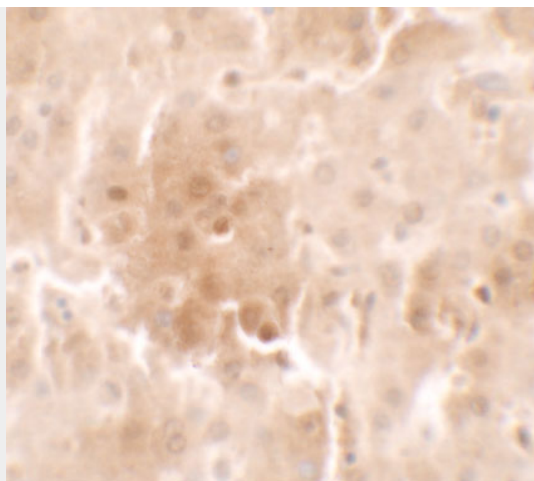
**RNF20 Antibody - Protocols**

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

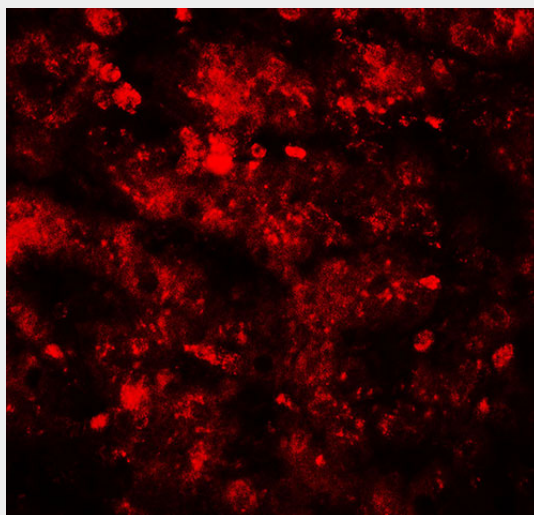
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**RNF20 Antibody - Images**

Western blot analysis of RNF20 in human liver tissue lysate with RNF20 antibody at (A) 1 and (B) 2 µg/mL.



Immunohistochemistry of RNF20 in human liver tissue with RNF20 antibody at 2.5 µg/ml.



Immunofluorescence of RNF20 in human liver tissue with RNF20 antibody at 20 µg/ml.

### **RNF20 Antibody - Background**

**RNF20 Antibody:** RNF20 is an E3 ubiquitin ligase that regulates chromosome structure by monoubiquitinating histone H2B. RNF20 selectively suppresses the expression of some genes such as several protooncogenes and growth-related genes, including many genes that are induced by epidermal growth factor by interfering with chromatin recruitment of transcription elongation factor SII (TFIIS). In contrast, RNF20 also positively regulates the p53 tumor suppressor as well as numerous histone H2A and H2B genes. Together with the deubiquitinase USP44, RNF20 regulates stem cell differentiation by modulating H2B monoubiquitination.

### **RNF20 Antibody - References**

Zhu B, Zheng Y, Pham AD, et al. Monoubiquitination of human histone H2B: the factors involved and their roles in HOX gene regulation. *Mol. Cell* 2005; 20:601-11.  
Shema E, Kim J, Roeder RG, et al. RNF20 inhibits TFIIS-facilitated transcriptional elongation to suppress pro-oncogenic gene expression. *Mol Cell* 2011; 42:477-88.  
Shema E, Tirosh I, Aylon Y, et al. The histone H2B-specific ubiquitin ligase RNF20/hBRE1 acts as a putative tumor suppressor through selective regulation of gene expression. *Genes Dev.* 2008; 22:2664-76.  
Fuchs G, Shema E, Vesterman R, et al. RNF20 and USP44 regulate stem cell differentiation by modulating H2B monoubiquitylation. *Mol. Cell* 2012; 46:662-73.