For Research Use Only

RNF20 Polyclonal antibody

Catalog Number:21625-1-AP Featured Product 13 Publications

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Basic Information

Catalog Number:
21625-1-AP

Size:
150ul , Concentration: 350 μg/ml by Nanodrop and 247 μg/ml by Bradford method using BSA as the standard;

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG16066

GenBank Accession Number:
BC110585

GeneID (NCBI):
56254

Full Name:
ring finger protein 20

Calculated MW:
975 aa, 114 kDa

Observed MW:
114 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:1000-1:8000
IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
IHC 1:50-1:500
IF 1:200-1:800

Applications

Tested Applications:
IF, IHC, IP, WB, ELISA

Cited Applications:
IF, WB

Species Specificity:
human, mouse, rat

Cited Species:
human, mouse, pig

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : HeLa cells, MCF-7 cells, mouse liver tissue, Jurkat cells

IP : HeLa cells,

IHC : mouse kidney tissue,

IF : HepG2 cells, HeLa cells

Background Information

RNF20, also named as E3 ubiquitin-protein ligase BRE1A, is a 975 amino acid protein, which contains 1 RING-type zinc finger and belongs to the BRE1 family. RNF20 is a component of the RNF20/40 complex and localizes in the nucleus. RNF20 is a 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). The RNF20/40 complex forms a H2B ubiquitin ligase complex in cooperation with the E2 enzyme UBE2A or UBE2B. RNF20 is required for transcriptional activation of Hox genes and recruited to the MDM2 promoter, probably by being recruited by p53/TP53, and thereby acts as a transcriptional coactivator. RNF20/40 complex monoubiquitinates and stabilizes Eg5. Loss of RNF20/40 results in spindle assembly defects, cell cycle arrest and apoptosis. Spindle assembly role of the RNF20/40 complex, and implicates the RNF20/40-Eg5 axis in breast carcinogenesis, supporting the pursuit of these proteins as potential targets for breast cancer therapeutic interventions.

Notable Publications

Author	Pubmed ID	Journal	Application
Mengtian Zhang	36103829	Cell Rep	WB,IF
Ying Zhao	34647359	Cell Prolif	WB
Muyu Xu	29791506	PLoS Pathog	WB

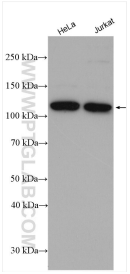
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

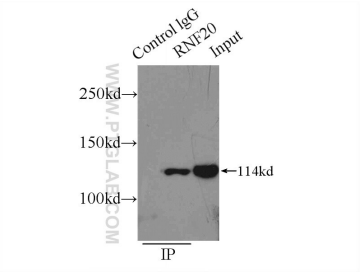
*** 20ul sizes contain 0.1% BSA

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

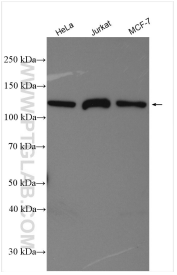
Selected Validation Data



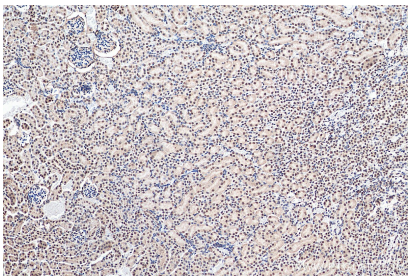
Various lysates were subjected to SDS PAGE followed by western blot with 21625-1-AP (RNF20 antibody) at dilution of 1:4000 incubated at room temperature for 1.5 hours.



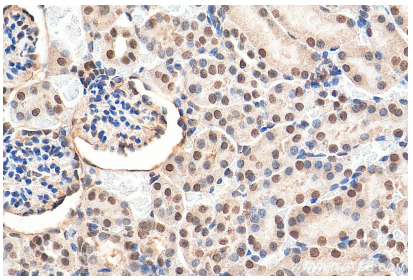
IP Result of anti-RNF20 (IP:21625-1-AP, 3ug; Detection:21625-1-AP 1:500) with HeLa cells lysate 2000ug.



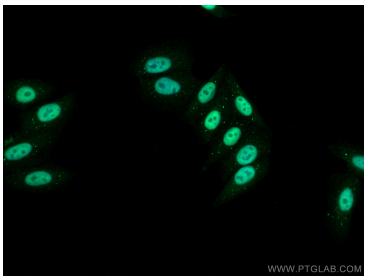
Various lysates were subjected to SDS PAGE followed by western blot with 21625-1-AP (RNF20 antibody) at dilution of 1:7000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded mouse kidney tissue slide using 21625-1-AP (RNF20 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse kidney tissue slide using 21625-1-AP (RNF20 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using RNF20 antibody (21625-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).