## For Research Use Only

## RIF1 Polyclonal antibody

Catalog Number:30119-1-AP



**Basic Information** 

Catalog Number: GenBank Accession Number:

30119-1-AP NM\_001177663.1 GeneID (NCBI): Size:

150ul , Concentration: 600 ug/ml by 55183 Nanodrop: **UNIPROT ID:** Q5UIP0 Rabbit

Full Name: Isotype: RAP1 interacting factor homolog

IgG (veast)

Immunogen Catalog Number: Calculated MW: AG32422 274 kDa Observed MW:

300 kDa

**Applications** 

**Tested Applications:** WB, IHC, IF/ICC, ELISA Species Specificity:

Human, mouse

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: A431 cells, HEK-293T cells, HT-29 cells, HeLa

**Purification Method:** 

WB 1:1000-1:4000 IHC 1:400-1:1600

IF/ICC 1:600-1:2400

Antigen affinity purification

Recommended Dilutions:

cells, HepG2 cells, MCF-7 cells

IHC: human cervical cancer tissue, mouse testis tissue

IF/ICC: HeLa cells, HEK-293 cells

## **Background Information**

 $RIF1 (Rap 1-interacting \ factor \ 1) is \ a \ multifunctional \ chromosome \ stability \ protein \ implicated \ in \ controlling \ DNA$ replication and repair. Human RIF1 can interact with protein phosphatase 1 (PP1) and the interaction is crucial for controlling DNA replication by limiting phosphorylation of the MCM complex (PMID: 28077461). RIF1 also acts with PP1 to protect nascent DNA from overdegradation at stalled replication forks (PMID: 31141682). RIF1 promotes nonhomologous end joining (NHEJ) in double strand break (DSB) repair (PMID: 30443189). Research studies show that RIF1 is overexpressed in breast cancer tissues and is upgraded in NSCLC tissues (PMID: 30237512).

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

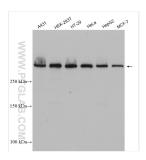
Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

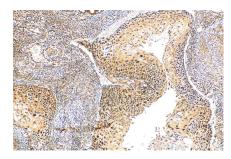
Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

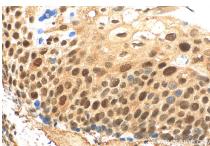
## **Selected Validation Data**



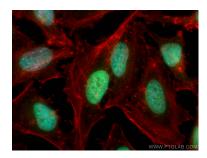
Various lysates were subjected to SDS PAGE followed by western blot with 30119-1-AP (RIF1 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



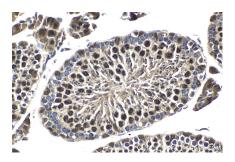
Immunohistochemical analysis of paraffinembedded human cervical cancer tissue slide using 30119-1-AP (RIF1 antibody) at dilution of 1:800 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffinembedded human cervical cancer tissue slide using 30119-1-AP (RIF1 antibody) at dilution of 1:800 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using RIF1 antibody (30119-1-AP) at dilution of 1:1200 and CoraLite® 488-Conjugated Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).



Immunohistochemical analysis of paraffinembedded mouse testis tissue slide using 30119-1-AP (RIF1 antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).