

**UHRF1** Polyclonal Antibody

Catalog # AP73249

## Specification

## **UHRF1** Polyclonal Antibody - Product Information

Application	WB
Primary Accession	<u>Q96T88</u>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Clonality	Polyclonal

## **UHRF1** Polyclonal Antibody - Additional Information

## Gene ID 29128

Other Names

UHRF1; ICBP90; NP95; RNF106; E3 ubiquitin-protein ligase UHRF1; Inverted CCAAT box-binding protein of 90 kDa; Nuclear protein 95; Nuclear zinc finger protein Np95; HuNp95; hNp95; RING finger protein 106;Transcription factor ICBP90; Ubiquitin-like PHD and RING finger domain-containing protein 1; hUHRF1; Ubiquitin-like-containing PHD and RING finger domains protein 1

**Dilution** WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/40000. Not yet tested in other applications.

**Format** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions -20°C

## **UHRF1** Polyclonal Antibody - Protein Information

Name UHRF1

Synonyms ICBP90, NP95, RNF106

## Function

Multidomain protein that acts as a key epigenetic regulator by bridging DNA methylation and chromatin modification. Specifically recognizes and binds hemimethylated DNA at replication forks via its YDG domain and recruits DNMT1 methyltransferase to ensure faithful propagation of the DNA methylation patterns through DNA replication. In addition to its role in maintenance of DNA methylation, also plays a key role in chromatin modification: through its tudor-like regions and PHD-type zinc fingers, specifically recognizes and binds histone H3 trimethylated at 'Lys-9' (H3K9me3) and unmethylated at 'Arg-2' (H3R2me0), respectively, and recruits chromatin proteins. Enriched in pericentric heterochromatin where it recruits different chromatin modifiers required for this chromatin replication. Also localizes to euchromatic regions where it negatively regulates transcription possibly by impacting DNA methylation and histone modifications. Has E3



ubiquitin-protein ligase activity by mediating the ubiquitination of target proteins such as histone H3 and PML. It is still unclear how E3 ubiquitin-protein ligase activity is related to its role in chromatin in vivo. Plays a role in DNA repair by cooperating with UHRF2 to ensure recruitment of FANCD2 to interstrand cross-links (ICLs) leading to FANCD2 activation. Acts as a critical player of proper spindle architecture by catalyzing the 'Lys-63'-linked ubiquitination of KIF11, thereby controlling KIF11 localization on the spindle (PubMed:<a

href="http://www.uniprot.org/citations/37728657" target=" blank">37728657</a>).

#### **Cellular Location**

Nucleus {ECO:0000255|PROSITE-ProRule:PRU00358, ECO:0000269|PubMed:10646863, ECO:0000269|PubMed:17673620, ECO:0000269|PubMed:17967883,

ECO:0000269 PubMed:19056828, ECO:0000269 PubMed:21777816,

ECO:0000269 PubMed:30335751 Note=Associated, through the YDG domain (also called SRA domain), with replicating DNA from early to late S phase, including at replicating pericentric heterochromatin (By similarity). Also localizes to euchromatic regions. In non-S-phase cells, homogenously distributed through the nucleus (By similarity). {ECO:0000250 |UniProtKB:Q8VDF2}

#### Tissue Location

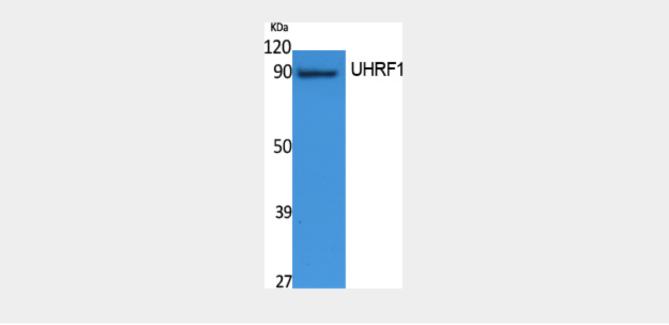
Expressed in thymus, bone marrow, testis, lung and heart. Overexpressed in breast cancer.

## **UHRF1 Polyclonal Antibody - Protocols**

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

- Western Blot
- Blocking Peptides
- <u>Dot Blot</u>
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

## UHRF1 Polyclonal Antibody - Images



# **UHRF1** Polyclonal Antibody - Background



Multidomain protein that acts as a key epigenetic regulator by bridging DNA methylation and chromatin modification. Specifically recognizes and binds hemimethylated DNA at replication forks via its YDG domain and recruits DNMT1 methyltransferase to ensure faithful propagation of the DNA methylation patterns through DNA replication. In addition to its role in maintenance of DNA methylation, also plays a key role in chromatin modification: through its tudor-like regions and PHD-type zinc fingers, specifically recognizes and binds histone H3 trimethylated at 'Lys-9' (H3K9me3) and unmethylated at 'Arg-2' (H3R2me0), respectively, and recruits chromatin proteins. Enriched in pericentric heterochromatin where it recruits different chromatin modifications. Has E3 ubiquitin-protein ligase activity by mediating the ubiquitination of target proteins such as histone H3 and PML. It is still unclear how E3 ubiquitin-protein ligase activity is related to its role in chromatin in vivo. May be involved in DNA repair.