10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

UHRF1 Antibody
Rabbit Polyclonal Antibody
Catalog # ABV11137

Specification

UHRF1 Antibody - Product Information

Application	**WB**
Primary Accession	Q96T88
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**89814**

UHRF1 Antibody - Additional Information

Gene ID 29128

Positive Control	**Western Blot: Various cell lysates**
Application & Usage	**Western blot: 1:500 – 1:2000, IHC: 1:50 – 1:200, IF: 1:20 – 1:50, IP: 1:20 – 1:50, CHIP: 1:20 – 1:50. However, the optimal conditions should be determined individually.**

Other Names
FLJ21925, ICBP90, MGC138707, Np95, RNF106, hNP95

Target/Specificity
UHRF1

Antibody Form
Liquid

Appearance
Colorless liquid

Formulation
100 µg of antibody in 100 µl PBS containing 0.02% sodium azide, 50% glycerol, pH 7.3

Handling
The antibody solution should be gently mixed before use.

Reconstitution & Storage
-20 °C

Background Descriptions

Precautions
UHRF1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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UHRF1 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:37728657).

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 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 Cytomety
- Cell Culture

UHRF1 Antibody - Images

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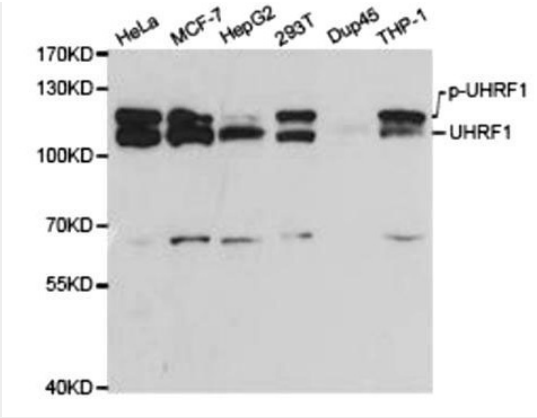

WB of various cell extracts with UHRF1 pAb.

UHRF1 Antibody - Background

UHRF1, also named as ICBP90, NP95 and RNF106, is a putative E3 ubiquitin protein ligase. It may participate in methylation dependent transcriptional regulation. UHRF1 binds to inverted 5'-CCAAT3' box 2 in the TOP2A promoter, and activates TOP2A expression. It is important for G1/S transition and may be involved in DNA repair and chromosomal stability. UHRF1's ability to repress its direct target gene expression is dependent on PHD (UHRF1) binding to unmodified H3R2.