

UHRF1 Rabbit mAb

Catalog # AP74863

Product Information

Application	WB, IP
Primary Accession	Q96T88
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	89814

Additional Information

Gene ID	29128
Other Names	UHRF1
Dilution	WB~~1/500-1/1000 IP~~N/A
Format	50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.

Protein Information

Name	UHRF1
Synonyms	ICBP90, NP95, RNF106
Function	<p>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</p>

(PubMed:[37728657](#)).

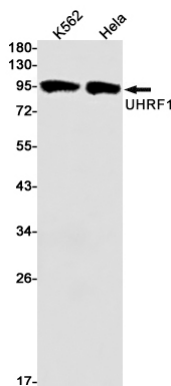
Cellular Location

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.

Images



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