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Anti-UHRF1 Picoband Antibody

Catalog # ABO12591

Specification

Anti-UHRF1 Picoband Antibody - Product Information

Application	**WB, IHC-P**
Primary Accession	Q96T88
Host	**Rabbit**
Reactivity	**Human**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for E3 ubiquitin-protein ligase UHRF1(UHRF1) detection. Tested with WB, IHC-P in Human.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-UHRF1 Picoband Antibody - Additional Information

Gene ID 29128

Other Names
E3 ubiquitin-protein ligase UHRF1, 2.3.2.27, Inverted CCAAT box-binding protein of 90 kDa, Nuclear protein 95, Nuclear zinc finger protein Np95, HuNp95, hNp95, RING finger protein 106, RING-type E3 ubiquitin transferase UHRF1, Transcription factor ICBP90, Ubiquitin-like PHD and RING finger domain-containing protein 1, hUHRF1, Ubiquitin-like-containing PHD and RING finger domains protein 1, UHRF1, ICBP90, NP95, RNF106

Calculated MW
89814 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat

Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization
Nucleus . Localizes to replication foci. Enriched in pericentric heterochromatin. Also localizes to euchromatic regions.

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

Protein Name
E3 ubiquitin-protein ligase UHRF1

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the N-terminus of human UHRF1 (14-51aa HTVDSLSRLTKVEELRRKIQELFHVEPGLQRLFYRGKQ), different from the related mouse sequence by six amino acids, and from the related rat sequence by five amino acids.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins.

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Anti-UHRF1 Picoband 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.

Anti-UHRF1 Picoband Antibody - Protocols

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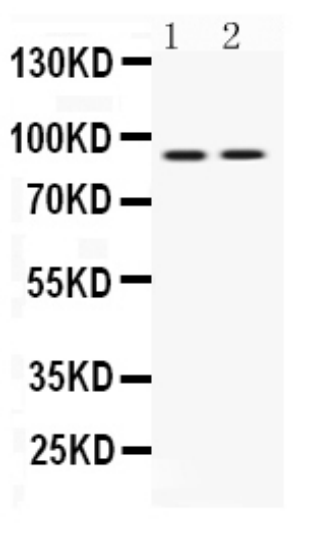
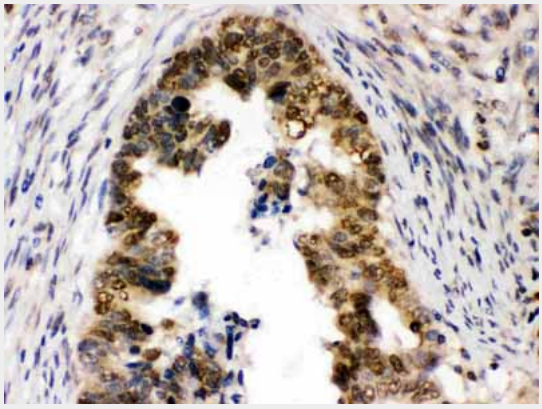
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-UHRF1 Picoband Antibody - Images



Western blot analysis of UHRF1 expression in MCF-7 whole cell lysates (lane 1) and U2OS whole cell lysates (lane 2). UHRF1 at 90KD was detected using rabbit anti- UHRF1 Antigen Affinity purified polyclonal antibody (Catalog # ABO12591) at0.5 ??g/mL. The blot was developed using chemiluminescence (ECL) method .



UHRF1 was detected in paraffin-embedded sections of human intestinal cancer tissues using rabbit anti- UHRF1 Antigen Affinity purified polyclonal antibody (Catalog # ABO12591) at 1 Î¼g/mL. The immunohistochemical section was developed using SABC method .

Anti-UHRF1 Picoband Antibody - Background

Ubiquitin-like, containing PHD and RING finger domains, 1 is a protein which in humans is encoded by the UHRF1 gene. This gene encodes a member of a subfamily of RING-finger type E3 ubiquitin

ligases. The protein binds to specific DNA sequences, and recruits a histone deacetylase to regulate gene expression. Its expression peaks at late G1 phase and continues during G2 and M phases of the cell cycle. It plays a major role in the G1/S transition by regulating topoisomerase IIalpha and retinoblastoma gene expression, and functions in the p53-dependent DNA damage checkpoint. It is regarded as a hub protein for the integration of epigenetic information. This gene is up-regulated in various cancers, and it is therefore considered to be a therapeutic target. Multiple transcript variants encoding different isoforms have been found for this gene. A related pseudogene exists on chromosome 12.