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KD-Validated Anti-UHRF2 Mouse Monoclonal Antibody

Mouse monoclonal antibody
Catalog # AGI2184

Product Information

Application	WB
Primary Accession	Q96PU4
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Mouse IgG1
Clone Names	24GB14330
Calculated MW	89985
Gene Name	UHRF2
Aliases	UHRF2; Ubiquitin Like With PHD And Ring Finger Domains 2; RNF107; NIRF; TDRD23; URF2; Ubiquitin-Like With PHD And Ring Finger Domains 2, E3 Ubiquitin Protein Ligase; Ubiquitin-Like-Containing PHD And RING Finger Domains Protein 2; Ubiquitin-Like PHD And RING Finger Domain-Containing Protein 2; RING-Type E3 Ubiquitin Transferase UHRF2; Np95/ICBP90-Like RING Finger Protein; E3 Ubiquitin-Protein Ligase UHRF2; Np95-Like Ring Finger Protein; RING Finger Protein 107; Nuclear Protein 97; MGC33463; Ubiquitin-Like, Containing PHD And RING Finger Domains, 2; Nuclear Zinc Finger Protein NP97; Nuclear Zinc Finger Protein Np97; Np95-Like RING Finger Protein; EC 2.3.2.27; EC 6.3.2
Immunogen	Recombinant protein of human UHRF2

Additional Information

Gene ID	115426
Other Names	E3 ubiquitin-protein ligase UHRF2, 2.3.2.27, Np95/ICBP90-like RING finger protein, Np95-like RING finger protein, Nuclear protein 97, Nuclear zinc finger protein Np97, RING finger protein 107, RING-type E3 ubiquitin transferase UHRF2, Ubiquitin-like PHD and RING finger domain-containing protein 2, Ubiquitin-like-containing PHD and RING finger domains protein 2, UHRF2, NIRF, RNF107

Protein Information

Name	UHRF2
Synonyms	NIRF, RNF107
Function	E3 ubiquitin ligase that plays important roles in DNA methylation, histone modifications, cell cycle and DNA repair (PubMed:15178429, PubMed:23404503, PubMed:27743347, PubMed:29506131). Acts as a specific reader for 5-hydroxymethylcytosine (5hmC) and thereby recruits various substrates to these sites to ubiquitinate them (PubMed:24813944,

PubMed:27129234). This activity also allows the maintenance of 5mC levels at specific genomic loci and regulates neuron-related gene expression (By similarity). Participates in cell cycle regulation by ubiquitinating cyclins CCND1 and CCNE1 and thereby inducing G1 arrest (PubMed:15178429, PubMed:15361834, PubMed:21952639). Also ubiquitinates PCNP leading to its degradation by the proteasome (PubMed:12176013, PubMed:14741369). Plays an active role in DNA damage repair by ubiquitinating p21/CDKN1A leading to its proteasomal degradation (PubMed:29923055). Also promotes DNA repair by acting as an interstrand cross-links (ICLs) sensor. Mechanistically, cooperates with UHRF1 to ensure recruitment of FANCD2 to ICLs, leading to FANCD2 monoubiquitination and subsequent activation (PubMed:30335751). Contributes to UV-induced DNA damage response by physically interacting with ATR in response to irradiation, thereby promoting ATR activation (PubMed:33848395).

Cellular Location

Nucleus {ECO:0000255|PROSITE-ProRule:PRU00358, ECO:0000269|PubMed:12176013, ECO:0000269|PubMed:23404503, ECO:0000269|PubMed:27129234, ECO:0000269|PubMed:27743347, ECO:0000269|PubMed:29923055, ECO:0000269|PubMed:30335751}. Chromosome. Note=Enriched at genomic loci that are enriched for 5-hydroxymethylcytosine (5hmC)

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