

Anti-HLTF Rabbit Monoclonal Antibody
Catalog # ABO15729**Specification****Anti-HLTF Rabbit Monoclonal Antibody - Product Information**

Application	WB, IHC, IF, ICC
Primary Accession	Q14527
Host	Rabbit
Isotype	IgG
Reactivity	Rat, Human
Clonality	Monoclonal
Format	Liquid

Description

Anti-HLTF Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF applications. This antibody reacts with Human, Rat.

Anti-HLTF Rabbit Monoclonal Antibody - Additional Information

Gene ID 6596

Other Names

Helicase-like transcription factor, 2.3.2.27, 3.6.4.-, DNA-binding protein/plasminogen activator inhibitor 1 regulator, HIP116, RING finger protein 80, RING-type E3 ubiquitin transferase HLTF, SWI/SNF-related matrix-associated actin-dependent regulator of chromatin subfamily A member 3, Sucrose nonfermenting protein 2-like 3, HLTF, HIP116A, RNF80, SMARCA3, SNF2L3, ZBU1

Calculated MW

120 kDa KDa

Application Details

WB 1:1000-1:5000
IHC 1:50-1:200
ICC/IF 1:50-1:200

Contents

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

Immunogen

A synthesized peptide derived from human HLTF

Purification

Affinity-chromatography

Storage

Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Anti-HLTF Rabbit Monoclonal Antibody - Protein Information

Name HLTF ([HGNC:11099](#))

Function

Functions as a DNA-dependent ATPase and E3 ubiquitin-protein ligase involved in chromatin regulation and DNA damage tolerance (DDT) (PubMed: [18316726](http://www.uniprot.org/citations/18316726), PubMed: [18719106](http://www.uniprot.org/citations/18719106), PubMed: [26051180](http://www.uniprot.org/citations/26051180), PubMed: [31960921](http://www.uniprot.org/citations/31960921), PubMed: [39142279](http://www.uniprot.org/citations/39142279), PubMed: [40680746](http://www.uniprot.org/citations/40680746)). Catalyzes 'Lys-63'-linked polyubiquitination of monoubiquitinated PCNA at 'Lys-164' in response to genotoxic stress, promoting error-free postreplication repair via template switching (PubMed: [18316726](http://www.uniprot.org/citations/18316726), PubMed: [18719106](http://www.uniprot.org/citations/18719106)). Acts as an epigenetic regulator by promoting recruitment of DNMT1, thereby ensuring DNA methylation inheritance: specifically binds histone H3 trimethylated at 'Lys-9' (H3K9me3) and mediates histone H3 'Lys-23' polyubiquitination (H3K23ub), a docking site for DNMT1, leading to DNMT1 recruitment and replication-coupled DNA methylation maintenance (PubMed: [40680746](http://www.uniprot.org/citations/40680746)). Catalyzes formation of H3K23ub in two steps: first mediates monoubiquitination together with UBE2E1 and UBE2D2, and then extends ubiquitin chains via 'Lys-63'-linked ubiquitination together with UBE2N and UBE2V2 (PubMed: [40680746](http://www.uniprot.org/citations/40680746)). Also acts as a chromatin redodeling factor, thereby regulating transcription (PubMed: [10391891](http://www.uniprot.org/citations/10391891), PubMed: [1994885](http://www.uniprot.org/citations/1994885), PubMed: [9126292](http://www.uniprot.org/citations/9126292)). Exhibits ATP-dependent double-stranded DNA (dsDNA) translocase activity but lacks classical helicase activity; mediates replication fork reversal by concertedly unwinding and annealing nascent and parental strands, thereby suppressing DNA synthesis and maintaining genomic stability (PubMed: [1994885](http://www.uniprot.org/citations/1994885)). Resolves G-quadruplex (G4) DNA structures in cooperation with MSH2, limiting replication stress and G4 accumulation across the cell cycle (PubMed: [39142279](http://www.uniprot.org/citations/39142279)). Contributes to nucleotide excision repair by evicting lesion-containing oligonucleotides using its HIRAN and ATPase domains (PubMed: [26051180](http://www.uniprot.org/citations/26051180)). Can displace single-stranded DNA from triplex structures through ATP-dependent dsDNA translocation (PubMed: [26051180](http://www.uniprot.org/citations/26051180), PubMed: [31960921](http://www.uniprot.org/citations/31960921)). Also has protein clearing activity at the stalled replication fork, facilitating restart of DNA replication (PubMed: [21795603](http://www.uniprot.org/citations/21795603)).

Cellular Location

Nucleus. Chromosome

Tissue Location

Expressed in brain, heart, kidney, liver, lung, pancreas, placenta and skeletal muscle.

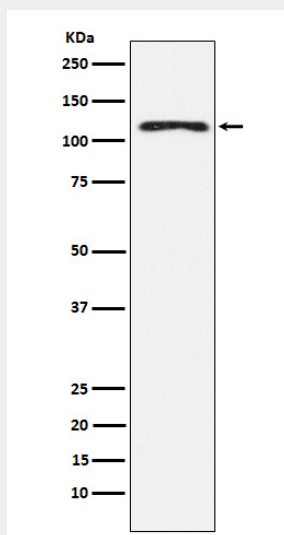
Anti-HLTF Rabbit Monoclonal Antibody - Protocols

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

- [Western Blot](#)

- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-HLTF Rabbit Monoclonal Antibody - Images



Western blot analysis of HLTF expression in K562 cell lysate.