

ALKBH2 Rabbit mAb
Catalog # AP75055**Specification****ALKBH2 Rabbit mAb - Product Information**

Application	WB
Primary Accession	Q6NS38
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	29322

ALKBH2 Rabbit mAb - Additional Information**Gene ID** 121642**Other Names**
ALKBH2**Dilution**
WB~~1/500-1/1000**Format**
50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.**Storage**
Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.**ALKBH2 Rabbit mAb - Protein Information****Name** ALKBH2**Synonyms** ABH2 {ECO:0000303|PubMed:16174769}**Function**

Dioxygenase that repairs alkylated nucleic acid bases by direct reversal oxidative dealkylation. Can process both double- stranded (ds) and single-stranded (ss) DNA substrates, with a strong preference for dsDNA (PubMed:12486230, PubMed:12594517, PubMed:16174769, PubMed:20714506, PubMed:23972994, PubMed:25797601). Uses molecular oxygen, 2-oxoglutarate and iron as cofactors to oxidize the alkyl groups that are subsequently released as aldehydes, regenerating the undamaged bases. Probes the base pair stability, locates a weakened base pair and flips the damaged base to accommodate the lesion in its active site for efficient catalysis (PubMed:18432238, PubMed:18432238, PubMed:18432238).

[22659876](http://www.uniprot.org/citations/22659876)). Repairs monoalkylated bases, specifically N1- methyladenine and N3-methylcytosine, as well as higher order alkyl adducts such as bases modified with exocyclic bridged adducts known as etheno adducts including 1,N6-ethenoadenine, 3,N4-ethenocytosine and 1,N2-ethenoguanine (PubMed:[12486230](http://www.uniprot.org/citations/12486230), PubMed:[12594517](http://www.uniprot.org/citations/12594517), PubMed:[16174769](http://www.uniprot.org/citations/16174769), PubMed:[20714506](http://www.uniprot.org/citations/20714506), PubMed:[23972994](http://www.uniprot.org/citations/23972994), PubMed:[25797601](http://www.uniprot.org/citations/25797601), PubMed:[26408825](http://www.uniprot.org/citations/26408825)). Acts as a gatekeeper of genomic integrity under alkylation stress. Efficiently repairs alkylated lesions in ribosomal DNA (rDNA). These lesions can cause ss- and dsDNA strand breaks that severely impair rDNA transcription (PubMed:[23972994](http://www.uniprot.org/citations/23972994)). In a response mechanism to DNA damage, associates with PCNA at replication forks to repair alkylated adducts prior to replication (PubMed:[19736315](http://www.uniprot.org/citations/19736315), PubMed:[26408825](http://www.uniprot.org/citations/26408825)).

Cellular Location

Nucleus. Nucleus, nucleolus. Nucleus, nucleoplasm. Note=Relocates to the replication foci during S-phase.

Tissue Location

Detected in colon, small intestine, ovary, testis, prostate, skeletal muscle, heart, liver and urinary bladder

ALKBH2 Rabbit mAb - 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](#)

ALKBH2 Rabbit mAb - Images

