ALKBH8 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	ALKBH8, Polyclonal Antibody
Full Product Name	ALKBH8 Antibody
Product Gene Name	anti-ALKBH8 antibody
Product Synonym Names	ABH8; TRM9; TRMT9
Clonality	Polyclonal
Isotype	Rabbit IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Rabbit IgG in pH7.4 PBS, 0.05% NaN3, 40% Glycerol.
Purity/Purification	Antigen affinity purification.
Specificity	The antibody detects endogenous levels of total ALKBH8 protein.
Preparation and Storage	Store at 4 degree C short term. Aliquot and store at -20 degree C long term. Avoid freeze/thaw cycles.
Molecular Weight	75,208 Da
Chromosome Location	Chromosome: 11; NC_000011.9 (107373453..107436461, complement). Location: 11q22.3
OMIM	613306
3D Structure	ModBase 3D Structure for Q96BT7
Immunogen	Full length fusion protein of human ALKBH8
Product Categories/Family for anti-ALKBH8 antibody	Primary Antibody
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-ALKBH8 antibody	Immunohistochemistry (IHC)
Application Notes for anti-ALKBH8 antibody	IHC: 1:25-1:100
Related Product Information for anti-ALKBH8 antibody	ALKBH8 (alkylated DNA repair protein AlkB homolog 8) is a 664 amino acid protein that is encoded by a gene located on chromosome 11. ALKBH8 contains one RRM (RNA recognition motif) domain and belongs to the AlkB family of proteins. ALKBH8 is one of many homologs of the Escherichia coli protein AlkB. AlkB functions to protect DNA and RNA against damage from environmental methylating compounds by directly reversing 1-methyladenine (1-meA) and 3-methylcytosine (3-meC) cytotoxic alkylation lesions in DNA and RNA. The enzyme acts by oxidative demethylation, utilizing ferrous iron and alpha-ketoglutarate as cofactors, 2-oxoglutarate as a co-substrate and molecular oxygen as the oxidizing agent. Three isoforms exist for ALKBH8 due alternative splicing of the gene
Other Notes	Small volumes of anti-ALKBH8 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for ALKBH8 purchase	MBS8593604 is an antibody targeting ALKBH8. Also known as ALKBH8 Antibody. Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ALKBH8. It may not necessarily be applicable to this product.

NCBI GI #	195927056
NCBI GeneID	91801
NCBI Accession #	NP_620130.2
UniProt Primary Accession #	Q96BT7
UniProt Secondary Accession #	Q8N989; B1Q2M0; B4DEF6
UniProt Related Accession #	Q96BT7
GenBank Nucleotide #	NM_138775.2
NCBI Official Full Name	alkylated DNA repair protein alkB homolog 8
NCBI Official Synonym Full Names	alkB, alkylation repair homolog 8 (E. coli)
NCBI Official Symbol	ALKBH8
NCBI Official Synonym Symbols	ABH8; FLJ38204; MGC10235
UniProt Protein Name	Alkylated DNA repair protein alkB homolog 8
UniProt Synonym Protein Names	Probable alpha-ketoglutarate-dependent dioxygenase ABH8; S-adenosyl-L-methionine-dependent tRNA methyltransferase ABH8
Protein Family	Alkylated DNA repair protein
UniProt Gene Name	ALKBH8
UniProt Synonym Gene Names	ABH8
UniProt Entry Name	ALKB8_HUMAN
NCBI Protein Information	alkylated DNA repair protein alkB homolog 8; AlkB homologue 8; OTTHUMP00000211286; OTTHUMP00000211287; OTTHUMP00000232587; probable alpha-ketoglutarate-dependent dioxygenase ABH8; S-adenosyl-L-methionine-dependent tRNA methyltransferase ABH8
UniProt Comments for ALKBH8	ALKBH8: Catalyzes the methylation of 5-carboxymethyl uridine to 5-methylcarboxymethyl uridine at the wobble position of the anticodon loop in tRNA. Catalyzes the last step in the formation of 5-methylcarboxymethyl uridine at the wobble position of the anticodon loop in target tRNA. Has a preference for tRNA(Arg) and tRNA(Glu), and does not bind tRNA(Lys). Required for normal survival after DNA damage. May inhibit apoptosis and promote cell survival and angiogenesis. Belongs to the alkB family. 4 isoforms of the human protein are produced by alternative splicing. Protein type: EC 2.1.1.229; Methyltransferase; RNA processing Chromosomal Location of Human Ortholog: 11q22.3 Cellular Component: microtubule cytoskeleton; nucleoplasm; nucleus; cytosol Molecular Function: protein binding; zinc ion binding; tRNA (uracil) methyltransferase activity; iron ion binding; oxidoreductase activity, acting on paired donors, with incorporation or reduction of molecular oxygen, 2-oxoglutarate as one donor, and incorporation of one atom each of oxygen into both donors; tRNA binding Biological Process: tRNA wobble uridine modification; response to DNA damage stimulus; tRNA methylation
Research Articles on ALKBH8	**1.** Data show that human AlkB homolog 8 (ABH8) catalyzes tRNA methylation to generate 5-methylcarboxymethyl uridine (mcm(5)U) at the wobble position of certain tRNAs, a critical anticodon loop modification linked to DNA damage survival.

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