ALKBH8 Antibody (C-Term) Blocking Peptide

PRODUCT OVERVIEW

Product Name	ALKBH8, Blocking Peptide
Full Product Name	ALKBH8 Antibody (C-term) Blocking Peptide
Product Gene Name	ALKBH8 blocking peptide
Product Synonym Gene Name	ABH8
Product Synonym Names	Alkylated DNA repair protein alkB homolog 8; 11411-; Probable alpha-ketoglutarate-dependent dioxygenase ABH8; S-adenosyl-L-methionine-dependent tRNA methyltransferase ABH8; tRNA (carboxymethyluridine(34)-5-O)-methyltransferase ABH8; ALKBH8; ABH8
Form/Format	Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 1 mg/ml.
Specificity	The synthetic peptide sequence used to generate the antibody was selected from the C-term region of human ALKBH8. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	ALKBH8 peptide (MBS9226346) is used for blocking the activity of ALKBH8 antibody (MBS9205525)
Molecular Weight	75,558 Da
OMIM	613306
Cellular Location	Cytoplasm. Nucleus. Note: Predominantly cytoplasmic
Tissue Location	Widely expressed, with highest expression in spleen, followed by pancreas and lung
Related Product Information for ALKBH8 blocking peptide	Catalyzes the methylation of 5-carboxymethyl uridine to 5-methylcarboxymethyl uridine at the wobble position of the anticodon loop in tRNA via its methyltransferase domain (PubMed:20123966, PubMed:20308323). Catalyzes the last step in the formation of 5-methylcarboxymethyl uridine at the wobble position of the anticodon loop in target tRNA (PubMed:20123966, PubMed:20308323). Has a preference for tRNA(Arg) and tRNA(Glu), and does not bind tRNA(Lys)(PubMed:20308323). Binds tRNA and catalyzes the iron and alpha-ketoglutarate dependent hydroxylation of 5-methylcarboxymethyl uridine at the wobble position of the anticodon loop in tRNA via its dioxygenase domain, giving rise to 5-(S)-methoxycarbonylhydroxymethyluridine; has a preference for tRNA(Gly) (PubMed:21285950). Required for normal survival after DNA damage (PubMed:20308323). May inhibit apoptosis and promote cell survival and angiogenesis (PubMed:19293182).
Other Notes	Small volumes of ALKBH8 blocking peptide 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	MBS9226346 is a blocking peptide targeting ALKBH8. Also known as ALKBH8 Antibody (C-term) Blocking Peptide.

ADDITIONAL DETAILS

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

NCBI GI #	189027650
NCBI GeneID	91801
NCBI Accession #	Q96BT7.2
UniProt Primary Accession #	Q96BT7

UniProt Secondary Accession #	Q8N989; B1Q2M0; B4DEF6
UniProt Related Accession #	Q96BT7
NCBI Official Full Name	Alkylated DNA repair protein alkB homolog 8
NCBI Official Synonym Full Names	alkB homolog 8, tRNA methyltransferase
NCBI Official Symbol	ALKBH8
NCBI Official Synonym Symbols	ABH8; TRM9; TRMT9
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; tRNA (carboxymethyluridine(34)-5-O)-methyltransferase ABH8 (EC:2.1.1.229)
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
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: RNA processing; EC 2.1.1.229; Methyltransferase Chromosomal Location of Human Ortholog: 11q22.3 Cellular Component: cytosol; microtubule cytoskeleton; nucleoplasm; nucleus Molecular Function: 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; protein binding; tRNA (uracil) methyltransferase activity; tRNA binding; zinc ion binding Biological Process: response to DNA damage stimulus; tRNA methylation; tRNA wobble uridine modification
Research Articles on ALKBH8	**1.** Many eukaryotic tRNAs contain the wobble modification 5-methoxycarbonylmethyl-uridine (mcm5U). It is demonstrated that (R)- and (S)-5-methoxycarbonylhydroxymethyluridine (mchm5U), hydroxylated forms of mcm(5)U, are present in mammalian tRNA-Arg(UCG), and tRNA-Gly(UCC), respectively. It is shown that the hydroxylation reaction leading to the formation of (S)-mchm5U is catalyzed by the oxygenase (AlkB) domain of ALKBH8.
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