

Recombinant Human ALKBH5 Protein, Flag-tagged

Cat. No. ALKBH5-32H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant ALKBH5 protein was expressed in a baculovirus expression system as the full length protein (accession number NP_060228.3) with an N-terminal FLAG-Tag. The molecular weight of ALKBH5 is 45.5 kDa.
Species	Human
Source	Insect Cells
Description	<p>N6-methylated adenine (m6A) is prevalent in nearly all RNA types and can be found in all organisms from bacteria to humans. It preferentially appears around stop codons and within long internal exons in mammalian messenger RNAs. m6A plays an important role in the efficiency of mRNA splicing, processing, translation efficiency, editing and mRNA stability. m6A also appears in other RNA molecules, such as primary miRNA (pri-miRNAs).</p> <p>ALKBH5 (AlkB Homolog 5, RNA Demethylase, also known as OFOXD1, ABH5) specifically demethylates m6A RNA. ALKBH5 significantly affects mRNA export and RNA metabolism as well as the assembly of mRNA processing factors in nuclear speckles via demethylation activity.</p>
Form	Recombinant ALKBH5 protein is supplied at a concentration of 0.3 g/ μ in 25 mM HEPES pH 7.5, 300 mM NaCl, 5% glycerol, 0.04% Triton X-100, 0.2 mM TCEP.
Molecular Mass	45.5 kDa
Purity	> 85%

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Applications	<p>Recombinant ALKBH5 protein is suitable for use in enzyme kinetics, inhibitor screening, and selectivity profiling.</p> <p>3 μ M m6A ssDNA oligos (DNA sequence: 5'-GTTGCCTGTTCGTGTTGG/m6A/CTTGCCTGT-3') were incubated with ALKBH5 protein in reaction buffer including 50 mM HEPES pH 7.5, 100 μ M 2OG, 100 μ M Ascorbate, 50 μ M (NH₄)₂Fe(SO₄)₂·6H₂O and 1 mM TCEP for 2 hours at room temperature. Dot-Blot was used for activity detection.</p>
Notes	This product is for research use only and is not for use in diagnostic procedures.
Stability	This product is stable for 6 months from data of arrival.
Storage	Recombinant proteins in solution are temperature sensitive and must be stored at -80 centigrade to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage.
Full Length	Full L.

GENE INFORMATION

Gene Name	ALKBH5 alkB, alkylation repair homolog 5 (E. coli) [Homo sapiens]
Official Symbol	ALKBH5
Synonyms	ALKBH5; FLJ20308; ABH5; OFOXD; OFOXD1;
Gene ID	54890
mRNA Refseq	NM_017758
Protein Refseq	NP_060228

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MIM 613303

UniProt ID Q6P6C2

ALKBH5-32H, 1 Recombinant ALKBH5 protein run on an 8% SDS-PAGE gel stained with Coomassie Blue.

ALKBH5-32H, 2 Recombinant ALKBH5 protein activity.
3 μ M m6A ssDNA oligos (sequence: 5'-GTTGCCTGTTTCGTGTTGG/m6A/CTTGCCTGT-3') incubated with ALKBH5 protein in reaction buffer for 2 hr at RT. Reaction products spotted onto positively charged nylon membrane were detected with Anti-m6A antibody (#31495). ALKBH5 only was used as negative control.

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