

ALKBH5 Protein, Human, Recombinant (His)

General Information

Synonyms:	Alkylated DNA repair protein alkB homolog 5;Alpha-ketoglutarate-dependent dioxygenase alkB homolog 5;OFOX1;ABH5;RNA demethylase ALKBH5;ALKBH5
Protein Construction:	2-394 aa
Species:	Human
Expression Host:	E. coli
Accession:	Q6P6C2
Molecular Weight:	48.2 kDa (predicted)
AA Sequence:	AAASGYTDLREKLKSMSTRDNYKAGSREAAAAAAAAAVAAAAAAAAAAEPYPVSGAKRKYQEDSDPERSDY EEQQLQKEEEARKVKSGIRQMRLFSQDECAKIEARIDEVVSRAEKGLYNEHTVDRAPLRNKYFFGEGYTYGAQ LQKRGPQGERLYPPGDVDEIPEWVHQLVIQKLVEHRVIPEGFVNSAVINDYQPGGCIVSHVDPIHIFERPIVSVS FFSDSALCFGCKFQFKPIRVSEPVLSLPLVRRGSVTVLSGYAADEITHCIRPQDIKERRAVIILRKTRLDAPRLETKS LSSVLPPSYASDRLSGNNRDPALKPKRSHRKADPDAAHRPRILEMDKEENRRSVLLPHTRRRGSFSENYW RKSYESSEDCSEAAGSPARKVKMRRH

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 90% as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose, pH 8.0.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in sterile deionized water. The product concentration should not be less than 100 μg/mL. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Dioxygenase that demethylates RNA by oxidative demethylation: specifically demethylates N(6)-methyladenosine (m6A) RNA, the most prevalent internal modification of messenger RNA (mRNA) in higher eukaryotes. Can also demethylate N(6)-methyladenosine in single-stranded DNA (in vitro). Requires molecular oxygen, alpha-ketoglutarate and iron. Demethylation of m6A mRNA affects mRNA processing and export. Required for the late meiotic and haploid phases of spermatogenesis by mediating m6A demethylation in spermatocytes and round spermatids: m6A demethylation of target transcripts is required for correct splicing and the production of longer 3'-UTR mRNAs in male germ cells.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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