Recombinant ALKB4 protein (His tag)

Catalog Number	546097
Synonyms	Alkylated DNA repair protein alkB homolog 4; DNA N6-methyl adenine demethylase ALKBH4; Lysine-specific demethylase ALKBH4
Species	Human
Expression System	E. coli
Accession	Q9NXW9
Molecular Weight	Predictes a molecular mass of 35.36 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 37 kDa band.

Product Information

Sequence Region	2-302
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 2-302 aa (Q9NXW9) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant ALKBH4 (Alpha-ketoglutarate-dependent dioxygenase alkB homolog 4) fragment (residues 2-302) from Homo sapiens, encompassing the complete Fe2OG dioxygenase domain. This high-purity protein is ideal for investigating actin demethylation, DNA repair mechanisms, and actomyosin dynamics in cellular processes such as cytokinesis and migration. ALKBH4 is a multifunctional dioxygenase that demethylates actin monomethylated at Lys-84 (K84me1), a critical modification for regulating actomyosin dynamics during cytokinesis and cell migration. It also demethylates N6-methyladenosine in DNA, contributing to Polycomb silencing regulation. The protein localizes to the cytoplasm, nucleus, nucleolus, and midbody, associating with the contractile ring and midbody to support cleavage furrow ingression. This recombinant fragment retains the essential Fe2OG dioxygenase domain, enabling targeted studies of its enzymatic and regulatory functions.