Recombinant ABC3H protein (His tag)

Catalog Number	542903
Synonyms	APOBEC-related protein 10; ARP-10; Apolipoprotein B mRNA-editing enzyme catalytic polypeptide-like 3H; A3H
Species	Human
Expression System	E. coli
Accession	Q6NTF7
Molecular Weight	Predictes a molecular mass of 25.19 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 25 kDa band.

Product Information

Sequence Region	1-200
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 1-200 aa (Q6NTF7) 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	This recombinant protein product features a 1-200 amino acid fragment of Human DNA dC->dU-editing enzyme APOBEC-3H (APOBEC3H), encompassing the complete CMP/dCMP-type deaminase domain. This carefully designed fragment provides researchers with an ideal tool for investigating the specific catalytic functions and biochemical properties of this critical antiviral enzyme domain. APOBEC-3H is a DNA deaminase (cytidine deaminase) that serves as a potent inhibitor of retrovirus replication and retrotransposon mobility through both deaminase-dependent and independent mechanisms. The enzyme selectively targets single-stranded DNA, converting cytosine to uracil in minus-sense viral DNA during reverse transcription, leading to G-to-A hypermutations that disrupt viral replication. APOBEC-3H exhibits antiviral activity against vif-deficient HIV-1, T-cell leukemia virus type 1 (HTLV-1), and inhibits the mobility of LTR and non-LTR retrotransposons. The protein localizes to both the cytoplasm and nucleus, with haplotype-dependent distribution patterns, and has been observed in cytoplasmic P-bodies, highlighting its role in cellular defense mechanisms against viral pathogens and mobile genetic elements.