Recombinant RED1 protein (His tag)

Catalog Number	540129
Synonyms	RNA-editing deaminase 1; RNA-editing enzyme 1; dsRNA adenosine deaminase
Species	Human
Expression System	E. coli
Accession	P78563
Molecular Weight	Predictes a molecular mass of 26.71 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 27 kDa band.

Product Information

Sequence Region	235-460
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 235-460 aa (P78563) 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 Human ADARB1 Fragment (aa 235-460): A high-purity, soluble protein fragment derived from Double-stranded RNA-specific editase 1 (ADARB1), engineered for structural and biochemical studies. This 226-amino acid fragment retains key properties for investigating A-to-I RNA editing mechanisms and enzyme function. ADARB1, or Double-stranded RNA-specific editase 1, catalyzes the hydrolytic deamination of adenosine to inosine in double-stranded RNA (A-to-I editing), a process critical for regulating gene expression. This enzyme influences mRNA translation, pre-mRNA splicing, RNA stability, and microRNA targeting by modifying specific adenosines in substrates such as neurotransmitter receptors (e.g., GRIA2, GRIK2, HTR2C) and ion channels (e.g., KCNA1). It also exhibits proviral effects in HIV-1 replication through both editing-dependent and independent mechanisms. Isoform 2 demonstrates higher catalytic activity than isoform 1. ADARB1 localizes to the nucleus and nucleolus, shuttling between these compartments, and is implicated in cell proliferation, migration, and exocytosis regulation. The recombinant fragment (aa 235-460) provides a stable, soluble unit for elucidating these functions without domain-specific constraints.