重组人TRUB1蛋白

Recombinant TRUB1 protein (His tag)

目录号 Catalog Number	543275
同用名 Synonyms	TruB pseudouridine synthase homolog 1; tRNA pseudouridine 55 synthase TRUB1; Psi55 synthase TRUB1
种属 Species	Human
表达系统 Expression System	E. coli
蛋白编号 Accession	Q8WWH5
分子量 Molecular Weight	Predictes a molecular mass of 29.61 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 30 kDa band.

产品信息

序列区间 Sequence Region	55-311
性状 Form	冻干粉末 Lyophilized powder
组分 Formulation	Lyophilized from sterile PBS, pH 7.4
纯度 Purity	>85%, by SDS-PAGE with Coomassie Brilliant Blue staining.
内毒素 Endotoxin	Not tested.
活性 Activity	Not tested.
稳定性 Stability	Samples are stable for up to twelve months from date of receipt at -70℃
蛋白构建 Protein Construction	DNA encoding 55-311 aa (Q8WWH5) were fused with C-terminal 6His tag.

保存与运输

复溶 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.
储存 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.
运输 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.

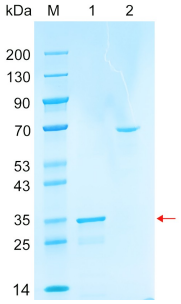
功能描述

研究背景 Background

This recombinant protein represents a stable, soluble fragment (amino acids 55-311) of Human Pseudouridylate Synthase TRUB1, a key enzyme responsible for mRNA and tRNA pseudouridylation. This carefully selected fragment maintains structural integrity and is ideal for structural studies, biochemical characterization, and functional analyses of pseudouridine synthase activity. Pseudouridylate Synthase TRUB1 (EC 5.4.99.25) is a crucial RNA-modifying enzyme that catalyzes pseudouridylation of both messenger RNAs and transfer RNAs. As the major pseudouridine synthase acting on mRNAs, it modifies transcripts with the consensus sequence 5'-GUUCNANNC-3' containing stem-loop structures. Additionally, TRUB1 synthesizes pseudouridine at position 55 in the psi GC loop of specific tRNAs. Beyond its catalytic function, TRUB1 plays a regulatory role in microRNA processing by binding to pri-let-7 stem-loop structures, preventing LIN28 binding and enhancing interaction with DGCR8 to promote miRNA maturation. The enzy

验证数据

SDS-PAGE



Recombinant TRUB1 protein (His tag) SDS-PAGE
M: Marker; Lane 1: TRUB1; Lane 2: BSA