Recombinant GRL1A protein (His tag)

Catalog Number	537487
Synonyms	DNA-directed RNA polymerase II subunit M; Glutamate receptor-like protein 1A
Species	Human
Expression System	E. coli
Accession	P0CAP2
Molecular Weight	Predictes a molecular mass of 22.69 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 25 kDa band.

Product Information

Sequence Region	188-368
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 188-368 aa (P0CAP2) 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 stable and soluble fragment (residues 188-368) of the human DNA-directed RNA polymerase II subunit GRINL1A (POLR2M). It is designed for structural and biochemical studies, offering researchers a reliable tool to investigate the regulatory mechanisms of RNA polymerase II in transcription. The full-length DNA-directed RNA polymerase II subunit GRINL1A (encoded by the POLR2M gene) is a stable component of the Pol II(G) complex, which synthesizes mRNA precursors and numerous non-coding RNAs. It plays a critical role in the basal RNA polymerase II transcription machinery, acting as a negative regulator of transcriptional activation. This repression is modulated by the Mediator complex, which restores activator-dependent transcription to levels comparable to those of Pol II. The protein is localized in the nucleus, underscoring its involvement in nuclear transcriptional processes. The selected fragment (188-368) was computationally optimized for stability and solubility, facilitating experimental applications without containing known domains.