Recombinant CABIN protein (His tag)

Catalog Number	548622
Synonyms	Calcineurin inhibitor; CAIN
Species	Human
Expression System	E. coli
Accession	Q9Y6J0
Molecular Weight	Predictes a molecular mass of 36.51 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 40 kDa band.

Product Information

Sequence Region	1-304
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 1-304 aa (Q9Y6J0) 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 Calcineurin-binding protein cabin-1 (CAIN) fragment (residues 1-304) is a high-quality, soluble protein designed for structural and biochemical studies. This fragment, derived from the CABIN1 gene, represents a stable unit ideal for investigating calcineurin inhibition and chromatin assembly mechanisms. The full-length Calcineurin-binding protein cabin-1 (CAIN) in Homo sapiens functions as a negative regulator of T-cell receptor (TCR) signaling by inhibiting calcineurin, a process dependent on both PKC and calcium signals. It also plays a role in replication-independent chromatin assembly and acts as a negative regulator of p53/TP53 by maintaining p53 in an inactive state on chromatin at promoters of specific target genes. The protein is localized to the nucleus, underscoring its involvement in nuclear processes such as gene expression regulation and chromatin dynamics.