Recombinant FNTA protein (His tag)

Catalog Number	544642
Synonyms	CAAX farnesyltransferase subunit alpha; FTase-alpha; Ras proteins prenyltransferase subunit alpha; Type I protein geranyl-geranyltransferase subunit alpha; GGTase-I-alpha
Species	Human
Expression System	E. coli
Accession	P49354
Molecular Weight	Predictes a molecular mass of 40.68 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 44 kDa band.

Product Information

Sequence Region	55-379
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 55-379 aa (P49354) 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 represents a stable and soluble fragment (residues 55-379) of the human Protein farnesyltransferase/geranylgeranyltransferase type-1 subunit alpha (FNTA). It is ideal for structural studies and biochemical assays investigating prenylation mechanisms, as it retains key functional regions while offering enhanced experimental utility. The full-length FNTA protein serves as an essential subunit in both farnesyltransferase and geranylgeranyltransferase complexes, catalyzing the transfer of farnesyl or geranylgeranyl groups to target proteins containing a C-terminal Cys-aliphatic-aliphatic-X motif. This prenylation activity is critical for the membrane localization and function of various signaling proteins, including Ras family members. FNTA also contributes to neuromuscular junction development by promoting RAC1 prenylation and activation. The fragment (55-379) was selected computationally to provide a stable, soluble unit suitable for detailed mechanistic and structural analyses without compromising functional relevance.