Recombinant DCA13 protein (His tag)

Catalog Number	543742
Synonyms	WD repeat and SOF domain-containing protein 1
Species	Human
Expression System	E. coli
Accession	Q9NV06
Molecular Weight	Predictes a molecular mass of 53.06 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 53 kDa band.

Product Information

Sequence Region	1-445
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 1-445 aa (Q9NV06) 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 DCAF13 (DDB1- and CUL4-associated factor 13) fragment (1-445) from Homo sapiens, a key protein involved in ribosome biogenesis and ubiquitin-mediated proteolysis. This stable, soluble fragment is ideal for structural studies and functional assays exploring its roles in cellular regulation. DCAF13 serves dual critical functions in cellular biology. As part of the small subunit (SSU) processome, it contributes to 18S rRNA processing and ribosome assembly in the nucleolus, particularly essential during oocyte development for the transition from nonsurrounded to surrounded nucleolus states. Additionally, DCAF13 acts as a substrate-recognition component in DCX E3 ubiquitin ligase complexes, regulating embryonic development by targeting proteins like histone methyltransferases SUV39H1/SUV39H2 and PTEN for polyubiquitination and degradation, thereby influencing chromatin organization, meiotic progression, and zygotic gene expression. The protein localizes predominantly to the nucleolar granular component, with presence also observed in fibrillar centers and dense fibrillar components, highlighting its central role in nuclear processes.