Recombinant CHFR protein (His tag)

Catalog Number	540978
Synonyms	Checkpoint with forkhead and RING finger domains protein; RING finger protein 196; RING-type E3 ubiquitin transferase CHFR
Species	Human
Expression System	E. coli
Accession	Q96EP1
Molecular Weight	Predictes a molecular mass of 15.73 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 16 kDa band.

Product Information

Sequence Region	1-124
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 1-124 aa (Q96EP1) 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 CHFR (E3 ubiquitin-protein ligase) Fragment (residues 1-124) is a high-purity protein designed for studying the FHA domain's role in cell cycle regulation and stress response. This fragment serves as an essential tool for investigating the molecular mechanisms of the antephase checkpoint and ubiquitin-mediated signaling pathways. The full-length CHFR protein is an E3 ubiquitin-protein ligase (EC 2.3.2.27) that plays a critical role in the antephase checkpoint by delaying mitotic entry in response to microtubule poisons. Functioning in early prophase before chromosome condensation, CHFR mediates both 'Lys-48'-linked ubiquitination leading to proteasomal degradation of targets like AURKA and PLK1, and 'Lys-63'-linked polyubiquitination with UBC13-MMS2 for stress signaling. It acts as a potential tumor suppressor by promoting HDAC1 degradation and is localized to nuclear PML bodies. The provided fragment (residues 1-124) contains the complete FHA domain (residues 38-89), enabling focused research on domain-specific interactions in checkpoint control and ubiquitin transfer mechanisms.