Product Data Sheet

CHFR Protein, Human

Cat. No.:	HY-P701540
Synonyms:	CHFR; E3 ubiquitin-protein ligase CHFR; Checkpoint with forkhead and RING finger domains protein; RING finger protein 196; RING-type E3 ubiquitin transferase CHFR
Species:	Human
Source:	E. coli
Accession:	Q96EP1 (E2-N664)
Gene ID:	55743
Molecular Weight:	

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FROFERTIES	
Appearance	Solution.
Formulation	Supplied as a 0.22 μm filtered solution of 50 mM Tris-HCl, pH7.5, 200 mM NaCl, 20% glycerol.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	Please use rapid thawing with running water to thaw the protein.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background

CHFR, an E3 ubiquitin-protein ligase, plays a crucial role in the antephase checkpoint, actively impeding the entry into mitosis in response to microtubule poisons. Its action commences in early prophase, preceding chromosome condensation, particularly when the centrosomes relocate along the nuclear periphery. CHFR is implicated in signaling the presence of mitotic stress induced by microtubule poisons, accomplishing this by catalyzing 'Lys-48'-linked ubiquitination of target proteins, leading to their subsequent degradation through the proteasome. Notably, CHFR orchestrates the ubiquitination and degradation of key mitotic regulators such as AURKA and PLK1. This multifaceted protein is likely to function as a tumor suppressor, potentially mediating the polyubiquitination of HDAC1, thereby targeting it for degradation. Moreover, CHFR may facilitate the formation of 'Lys-63'-linked polyubiquitin chains, collaborating with the UBC13-MMS2 heterodimer, where substrates marked with 'Lys-63' polyubiquitin chains typically participate in signaling cellular stress rather than facing degradation.

Caution: Product has not been fully validated for medical applications. For research use only.

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