RNF4 Protein, Human

Cat. No.:	HY-P702078
Synonyms:	RNF4; E3 ubiquitin-protein ligase RNF4; RING finger protein 4; RING-type E3 ubiquitin transferase RNF4; Small nuclear ring finger protein; Protein SNURF
Species:	Human
Source:	E. coli
Accession:	P78317 (G120-I190)
Gene ID:	/
Molecular Weight:	

PROPERTIES

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	RNF4 Protein operates as an E3 ubiquitin-protein ligase with a distinctive ability to bind polysumoylated chains covalently attached to proteins, facilitating the 'Lys-6', 'Lys-11', 'Lys-48', and 'Lys-63'-linked polyubiquitination of its substrates. These substrates are subsequently targeted for proteasomal degradation, contributing to the regulation of various cellular processes. RNF4 plays a role in the degradation of proteins such as PML and the transcriptional activator PEA3. In the context of chromosome dynamics, it influences kinetochore assembly, specifically targeting polysumoylated CENPI for proteasomal degradation and thereby impacting chromosome alignment and spindle assembly. Furthermore, RNF4 is implicated in cellular responses to hypoxia and heat shock, facilitating the degradation of EPAS1 and PARP1, respectively. Additionally, RNF4 may interact with DNA/nucleosomes, suggesting a potential direct involvement in transcriptional regulation, including the enhancement of basal transcription and steroid receptor-mediated transcriptional activation. Notably, it catalyzes the ubiquitination of sumoylated PARP1 in response to PARP1 trapping to chromatin, leading to the removal of PARP1 from chromatin facilitated by VCP/p97.

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

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