

Recombinant Rat RNF4 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52226

Size: 10ug, 100ug

Protein Name: E3 ubiquitin-protein ligase RNF4 (EC 2.3.2.27) (RING finger protein 4) (Small nuclear ring finger protein) (Protein SNURF)

Synonym: Rnf4, Snurf

UniProt ID: O88846

UniProt Link: www.uniprot.org/uniprotkb/O88846/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 194 AA

Molecular Weight: 22 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MSTRNPQRKRRGGAVNSRQTQKRTRETTSTPEISLEAEPIELVETVGDEIVDLTCEPLEPVVVDLTHN
DSVVIVEERRRPRRNGRRLRQDHADSCVVSSDDEELSKDKDVYVTTHTPRSTKDEGTTGLRPSGTV
SCPICMDGYSEIVQNGRLIVSTECGHVFCSQCLRDSLKNANTCPTCRKKINHKRYHPIYI

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant E3 ubiquitin-protein ligase RNF4 (EC 2.3.2.27) (RING finger protein 4) (Small nuclear ring finger protein) (Protein SNURF) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: E3 ubiquitin-protein ligase which binds polysumoylated chains covalently attached to proteins and mediates 'Lys-6', 'Lys-11', 'Lys-48' and 'Lys-63'-linked polyubiquitination of those substrates and their subsequent targeting to the proteasome for degradation (PubMed:14987998, PubMed:15707587, PubMed:18408734). Regulates the degradation of several proteins including PML and the transcriptional activator PEA3 (PubMed:15707587, PubMed:20943951). Involved in chromosome alignment and spindle assembly, it regulates the kinetochore CENPH-CENPI-CENPK complex by targeting polysumoylated CENPI to proteasomal degradation (By similarity). Regulates the cellular responses to hypoxia and heat shock through degradation of respectively EPAS1 and PARP1 (By similarity). Alternatively, it may also bind DNA/nucleosomes and have a more direct role in the regulation of transcription for instance enhancing basal transcription and steroid receptor-mediated transcriptional activation (PubMed:11319220, PubMed:9710597). Catalyzes ubiquitination of sumoylated PARP1 in response to PARP1 trapping to chromatin, leading to PARP1 removal from chromatin by VCP/p97 (By similarity).

Subcellular Localization: Cytoplasm . Nucleus . Nucleus, nucleoplasm . Nucleus, PML body .

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.