Recombinant RN168 protein (His tag)

Catalog Number	545397
Synonyms	hRNF168; RING finger protein 168; RING-type E3 ubiquitin transferase RNF168
Species	Human
Expression System	E. coli
Accession	Q8IYW5
Molecular Weight	Predictes a molecular mass of 23.78 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 28 kDa band.

Product Information

Sequence Region	1-189
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 1-189 aa (Q8IYW5) 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 E3 ubiquitin-protein ligase RNF168 (hRNF168) fragment (residues 1-189) is a high-quality protein product designed for structural and biochemical studies. This stable, soluble fragment supports research into DNA damage response mechanisms and ubiquitination pathways. E3 ubiquitin-protein ligase RNF168 is a nuclear enzyme essential for DNA damage repair, particularly at double-strand breaks and interstrand cross-links. It amplifies RNF8-dependent histone ubiquitination, working with UBE2N/UBC13 to generate 'Lys-63'-linked ubiquitin conjugates on histones H2A and H2AX. This activity facilitates recruitment of key repair proteins like TP53BP1 and BRCA1 to DNA lesions, enabling damage signaling and repair. RNF168 also mediates transcriptional silencing near DSBs and promotes class switch recombination in immunity. The protein localizes to DNA damage sites in the nucleus, where it regulates histone modifications and repair complex assembly.