Recombinant RING1 protein (His tag)

Catalog Number	542565
Synonyms	Polycomb complex protein RING1; RING finger protein 1; RING-type E3 ubiquitin transferase RING1; Really interesting new gene 1 protein
Species	Human
Expression System	E. coli
Accession	Q06587
Molecular Weight	Predictes a molecular mass of 19.26 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 19 kDa band.

Product Information

Sequence Region	1-154
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 1-154 aa (Q06587) 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 E3 ubiquitin-protein ligase RING1 (1-154) fragment is a high-quality, soluble protein derived from Homo sapiens, designed for structural and biochemical studies. This stable fragment retains key features of the full-length protein, enabling researchers to investigate its role in epigenetic regulation and Polycomb-mediated transcriptional repression. E3 ubiquitin-protein ligase RING1 is a central component of the Polycomb group (PcG) multiprotein PRC1-like complex, which mediates monoubiquitination of histone H2A at Lys-119. This modification serves as an epigenetic mark for transcriptional repression and is essential for processes such as X chromosome inactivation in female mammals. While RING1 primarily modulates the E3 ubiquitin ligase activity of RNF2/RING2 rather than serving as the main catalytic subunit, it plays a critical role in chromatin remodeling and maintaining the repressive state of genes, including Hox genes, during development. The protein is localized to the nucleus and nucleus speckles, underscoring its involvement in gene regulation and chromatin organization.