Recombinant COP1 protein (His tag)

Catalog Number	545501
Synonyms	Constitutive photomorphogenesis protein 1 homolog; hCOP1; RING finger and WD repeat domain protein 2; RING finger protein 200; RING-type E3 ubiquitin transferase RFWD2
Species	Human
Expression System	E. coli
Accession	Q8NHY2
Molecular Weight	Predictes a molecular mass of 44.54 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 45 kDa band.

Product Information

Sequence Region	353-731
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 353-731 aa (Q8NHY2) 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 COP1 fragment (residues 353-731) is a high-quality, stable protein product designed for structural and biochemical studies. This 379-amino acid fragment, selected for optimal solubility and stability, enables researchers to investigate the ubiquitination mechanisms mediated by COP1 without the complexities of the full-length protein. E3 ubiquitin-protein ligase COP1 (Constitutive photomorphogenesis protein 1 homolog) is a RING-type E3 ubiquitin transferase that mediates ubiquitination and subsequent proteasomal degradation of various target proteins. It plays critical roles in cellular regulation by ubiquitinating key substrates including JUN, p53 (TP53), 14-3-3 protein sigma/SFN, MTA1, and CEBPA, thereby influencing transcription, apoptosis, and cell survival pathways. COP1 functions by accepting ubiquitin from E2 ubiquitin-conjugating enzymes and directly transferring it to targeted substrates. The protein localizes to nuclear speckles and cytoplasm, where it participates in larger E3 complex formations. Its activity in degrading tumor suppressor p53 independently of MDM2 highlights its significance in cancer biology and cellular homeostasis.