Recombinant UFD1 protein (His tag)

Catalog Number	540916
Synonyms	Ubiquitin fusion degradation protein 1; UB fusion protein 1
Species	Human
Expression System	E. coli
Accession	Q92890
Molecular Weight	Predictes a molecular mass of 24.43 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 25 kDa band.

Product Information

Sequence Region	1-200
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 1-200 aa (Q92890) 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 UFD1 (Ubiquitin fusion degradation protein 1) fragment (residues 1-200) is a high-purity protein designed for structural and biochemical studies. This stable, soluble fragment supports research into the ubiquitin-proteasome system, ER-associated degradation, and cellular protein quality control mechanisms. Ubiquitin recognition factor in ER-associated degradation protein 1 (UFD1) is an essential component of the ubiquitin-dependent proteolytic pathway that degrades ubiquitin fusion proteins. It forms a ternary complex with VCP and NPLOC4 that binds ubiquitinated proteins and facilitates the export of misfolded proteins from the endoplasmic reticulum to the cytoplasm for proteasomal degradation. This complex also regulates spindle disassembly at the end of mitosis, contributes to nuclear envelope formation, and acts as a negative regulator of type I interferon production by promoting RIGI ubiquitination and degradation. The protein localizes to both the nucleus and cytoplasm, playing crucial roles in protein quality control and cellular homeostasis.