Recombinant OTUL protein (His tag)

Catalog Number	547916
Synonyms	Deubiquitinating enzyme otulin; OTU domain-containing deubiquitinase with linear linkage specificity; Ubiquitin thioesterase Gumby
Species	Human
Expression System	E. coli
Accession	Q96BN8
Molecular Weight	Predictes a molecular mass of 33.54 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 36 kDa band.

Product Information

Sequence Region	79-352
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 79-352 aa (Q96BN8) 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 OTULIN Fragment (aa 79-352) is a highly specific deubiquitinase enzyme that selectively cleaves linear (Met1-linked) polyubiquitin chains. This purified fragment encompasses the full OTU catalytic domain (aa 118-346), making it an ideal reagent for studying the mechanisms of linear deubiquitination, Wnt signaling regulation, NF-kappa-B pathway modulation, and immune response control in vitro. OTULIN (Ubiquitin thioesterase otulin) is a crucial deubiquitinating enzyme that specifically targets linear polyubiquitin chains, playing essential roles in angiogenesis, craniofacial development, neuronal development, and innate immune response regulation. The enzyme functions as a key regulator of the LUBAC complex by removing Met1-linked autoubiquitination, thereby maintaining complex activity and preventing spontaneous inflammation. OTULIN acts as a negative regulator of NF-kappa-B signaling and restricts linear polyubiquitin formation in response to NOD2 stimulation, making it vital for immune homeostasis and preventing autoimmunity. The protein is localized in the cytoplasm where it executes its deubiquitination functions. The recombinant fragment (aa 79-352) contains the complete OTU domain, preserving the enzyme's specific linear deubiquitination activity while providing a stable, purified tool for functional studies.