Recombinant DESI2 protein (His tag)

Catalog Number	543493
Synonyms	Desumoylating isopeptidase 2; DeSI-2; PPPDE peptidase domain-containing protein 1; Palmitoyl protein thioesterase DESI2; Protein FAM152A; S-depalmitoylase DESI2
Species	Human
Expression System	E. coli
Accession	Q9BSY9
Molecular Weight	Predictes a molecular mass of 23.10 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 24 kDa band.

Product Information

Sequence Region	1-194
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 1-194 aa (Q9BSY9) 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 Deubiquitinase DESI2 (EC 3.4.19.12), encompassing amino acids 1-194, is a high-purity fragment designed to include the complete PPPDE functional domain. This product offers researchers a targeted tool for investigating deubiquitinating and S-depalmitoylation activities in vitro, supporting studies on protein stability and post-translational modification mechanisms. Deubiquitinase DESI2, encoded by the DESI2 gene in Homo sapiens, functions as a deubiquitinating enzyme with activity towards both 'Lys-48'- and 'Lys-63'-linked polyubiquitin chains. It plays a critical role in stabilizing ribosomal protein RPS7 by removing its 'Lys-48'-linked polyubiquitination. Additionally, DESI2 exhibits palmitoyl protein thioesterase (S-depalmitoylation) activity, as demonstrated with synthetic substrates, indicating its involvement in reversible protein palmitoylation processes. The protein is primarily localized in the cytoplasm, where it likely modulates key regulatory pathways through its dual enzymatic functions.