Recombinant ASCC2 protein (His tag)

Catalog Number	545914
Synonyms	ASC-1 complex subunit p100; Trip4 complex subunit p100
Species	Human
Expression System	E. coli
Accession	Q9H1I8
Molecular Weight	Predictes a molecular mass of 16.42 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 18 kDa band.

Product Information

Sequence Region	465-591
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 465-591 aa (Q9H1I8) 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 ASCC2 (Activating Signal Cointegrator 1 Complex Subunit 2) Fragment (aa 465-591) is a high-purity protein designed for studying the CUE domain's role in ubiquitin binding, DNA repair mechanisms, and ribosome quality control pathways. The full-length ASCC2 protein, also known as ASC-1 complex subunit p100, is a multifunctional ubiquitin-binding protein critical for genomic stability and translational fidelity. It plays a central role in DNA damage repair as part of the ASCC complex, where it recognizes 'Lys-63'-linked polyubiquitin chains to recruit repair components like ASCC3 and ALKBH3 to damage sites. Additionally, ASCC2 is essential for ribosome quality control, where it specifically binds ubiquitinated RPS20/uS10 to initiate disassembly of stalled ribosomes and degradation of faulty nascent peptides. The protein localizes primarily to the nucleus and nuclear speckles, accumulating at DNA damage foci alongside spliceosomal components and ubiquitination markers when cells are exposed to genotoxic stress. Its involvement in both the ASC-1 transcriptional coactivator complex and stress response pathways underscores its significance in cellular homeostasis and disease research.