Recombinant ESPL1 protein (His tag)

Catalog Number	544989
Synonyms	Caspase-like protein ESPL1; Extra spindle poles-like 1 protein; Separase
Species	Human
Expression System	E. coli
Accession	Q14674
Molecular Weight	Predictes a molecular mass of 18.79 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 19 kDa band.

Product Information

Sequence Region	1137-1295
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 1137-1295 aa (Q14674) 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 Separin (ESPL1) Fragment (aa 1137-1295) is a high-purity, soluble protein derived from human separase, designed for structural and biochemical studies. This 159-amino acid fragment offers a stable and functional unit ideal for investigating the caspase-like protease activity central to chromosome segregation during anaphase. Separin, encoded by the ESPL1 gene in Homo sapiens, is a caspase-like protease essential for chromosome segregation by cleaving the SCC1/RAD21 subunit of the cohesin complex at the onset of anaphase. This activity ensures proper sister chromatid separation, and the protein is regulated through inactivation mechanisms throughout most of the cell cycle. It localizes to both the cytoplasm and nucleus, underscoring its critical role in cell division. The provided fragment represents a computationally optimized region for enhanced solubility and stability, facilitating research into separase's molecular functions without domain-specific constraints.