Recombinant STIL protein (His tag)

Catalog Number	540347
Synonyms	TAL-1-interrupting locus protein
Species	Human
Expression System	E. coli
Accession	Q15468
Molecular Weight	Predictes a molecular mass of 44.25 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 44 kDa band.

Product Information

Sequence Region	1-374
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 1-374 aa (Q15468) 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 SCL-interrupting locus protein (STIL) fragment (residues 1-374) is a high-quality, stable protein designed for structural and biochemical studies. This fragment, derived from the full-length STIL protein, is optimized for solubility and functionality, enabling researchers to investigate its critical roles in embryonic development, cell cycle regulation, and centriole duplication. The full-length STIL protein, encoded by the STIL gene in Homo sapiens, is an immediate-early gene essential for embryonic development, cellular growth, and proliferation. It functions as a positive regulator of the sonic hedgehog pathway, acting downstream of PTCH1, and plays a pivotal role in centriole duplication by initiating procentriole formation and ensuring proper mitotic progression. STIL is required for loading key proteins like SASS6 and CPAP to the procentriole base and, in complex with itself, modulates PLK4-driven cytoskeletal rearrangements and directional cell motility. Subcellularly, it localizes to the cytoplasm, cytosol, centrosome, centriole, and cell cortex, particularly at the leading edge, highlighting its involvement in cellular organization and motility processes.