Recombinant ESCO2 protein (His tag)

Catalog Number	540441
Synonyms	Establishment factor-like protein 2; EFO2; EFO2p; hEFO2; Establishment of cohesion 1 homolog 2; ECO1 homolog 2
Species	Human
Expression System	E. coli
Accession	Q56NI9
Molecular Weight	Predictes a molecular mass of 27.79 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 28 kDa band.

Product Information

Sequence Region	373-601
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 373-601 aa (Q56NI9) 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 N-acetyltransferase ESCO2 (EC 2.3.1.-) fragment (residues 373-601) is a high-quality protein product designed for structural and biochemical studies. This 229-amino acid fragment was computationally selected to ensure stability and solubility, making it an ideal tool for investigating the molecular mechanisms of sister chromatid cohesion and acetylation activity. ESCO2 is a crucial acetyltransferase in human cells, essential for establishing sister chromatid cohesion during DNA replication. It ensures proper pairing of sister chromatids by acetylating the cohesin component SMC3, coupling cohesion with DNA replication processes. Unlike structural cohesins, ESCO2 functions specifically during S phase. The protein localizes to the nucleus and associates with chromosomes, being excluded during metaphase but reassociating in telophase. This recombinant fragment enables focused research on ESCO2's functional domains without the complexities of the full-length protein.