Recombinant EID3 protein (His tag)

Catalog Number	545408
Synonyms	EID-3; E1A-like inhibitor of differentiation 3; EID-1-like inhibitor of differentiation 3; Non-structural maintenance of chromosomes element 4 homolog B; NS4EB; Non-SMC element 4 homolog B
Species	Human
Expression System	E. coli
Accession	Q8N140
Molecular Weight	Predictes a molecular mass of 17.35 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 19 kDa band.

Product Information

Sequence Region	33-168
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 33-168 aa (Q8N140) 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 EP300-interacting inhibitor of differentiation 3 (EID-3) fragment (residues 33-168) is a highly stable and soluble protein designed for structural and biochemical studies. This 136-amino acid fragment retains key properties for investigating EID-3's roles in DNA repair mechanisms and transcriptional regulation, offering researchers a reliable tool for exploring cellular processes. EID-3 is a multifunctional protein that serves as a tissue-specific component of the SMC5-SMC6 complex, which plays a critical role in repairing DNA double-strand breaks through homologous recombination. This complex facilitates sister chromatid recombination by recruiting cohesin complexes to damage sites and is essential for telomere maintenance via recombination-mediated processes. Additionally, EID-3 functions as a transcriptional repressor, potentially interfering with CREBBP/EP300-dependent coactivation and nuclear receptor-mediated transcription. The protein localizes to multiple cellular compartments including the nucleus, cytoplasm, and telomeres, and may shuttle between nuclear and cytoplasmic regions, reflecting its diverse functional roles in DNA maintenance and gene expression regulation.