Recombinant CTDS2 protein (His tag)

Catalog Number	539416
Synonyms	Nuclear LIM interactor-interacting factor 2; NLI-interacting factor 2; Protein OS-4; Small C-terminal domain phosphatase 2; Small CTD phosphatase 2; SCP2
Species	Human
Expression System	E. coli
Accession	O14595
Molecular Weight	Predictes a molecular mass of 22.62 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 25 kDa band.

Product Information

Sequence Region	88-271
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 88-271 aa (O14595) 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 CTDSP2 (Carboxy-terminal domain RNA polymerase II polypeptide A small phosphatase 2) fragment (residues 88-271), encompassing the complete FCP1 homology domain. This high-purity protein is an essential tool for investigating transcriptional regulation mechanisms, particularly Ser-5 dephosphorylation in RNA polymerase II's C-terminal domain. CTDSP2 is a nuclear phosphatase that specifically dephosphorylates 'Ser-5' within the tandem heptad repeats of RNA polymerase II's largest subunit (POLR2A). This activity negatively regulates transcription by potentially controlling the transition from transcription initiation to elongation. The protein plays a critical role in neuronal gene silencing through recruitment by REST to RE-1 elements in non-neuronal cells and may contribute to sarcoma development. Located exclusively in the nucleus, CTDSP2 represents a key regulatory component in gene expression control pathways.