Recombinant NDE1 protein (His tag)

Catalog Number	541391
Synonyms	NudE
Species	Human
Expression System	E. coli
Accession	Q9NXR1
Molecular Weight	Predictes a molecular mass of 23.51 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 30 kDa band.

Product Information

Sequence Region	1-183
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 1-183 aa (Q9NXR1) 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 Nuclear distribution protein nudE homolog 1 (NudE) fragment (amino acids 1-183) is a stable, soluble protein unit ideal for structural and biochemical studies. This fragment supports research into NudE's critical roles in centrosome duplication, mitotic spindle formation, and neuronal development, offering a reliable tool for investigating cellular division and brain cortex formation mechanisms. Nuclear distribution protein nudE homolog 1, encoded by the NDE1 gene in Homo sapiens, is essential for centrosome duplication and the proper formation and function of the mitotic spindle. It plays a vital role in cerebral cortex development by regulating the orientation of the mitotic spindle during cortical neuronal progenitor division, influencing neuron production and cortical layering. Misregulation can lead to reduced neuron numbers and altered cortical structure. Additionally, NudE acts as a RAB9A/B effector, tethering RAB9-associated late endosomes to the dynein motor for retrograde transport to the trans-Golgi network. The protein localizes to the cytoplasm, cytoskeleton, centrosome, kinetochore, mitotic spindle, cleavage furrow, and cytoplasmic vesicle membranes, highlighting its involvement in key cellular processes such as chromosome segregation and vesicle trafficking.