Recombinant NDP protein (His tag)

Catalog Number	540149
Synonyms	Norrie disease protein; X-linked exudative vitreoretinopathy 2 protein
Species	Human
Expression System	E. coli
Accession	Q00604
Molecular Weight	Predictes a molecular mass of 13.07 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 13 kDa band.

Product Information

Sequence Region	34-133
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 34-133 aa (Q00604) 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	Introducing the Norrin (NDP) Recombinant Protein Fragment (residues 34-133), a high-purity tool designed for investigating the canonical Wnt signaling pathway and retinal vascularization. This fragment fully encompasses the CTCK functional domain, making it an ideal reagent for domain-specific functional studies, ligand-receptor interactions, and signaling mechanism research. Norrin (Norrie disease protein), encoded by the NDP gene, is a key activator of the canonical Wnt signaling pathway through its interaction with FZD4 and LRP5 coreceptors. It plays a central role in retinal vascularization by functioning as a ligand for FZD4, leading to beta-catenin stabilization and activation of LEF/TCF-mediated transcriptional programs. Norrin operates in concert with TSPAN12 to activate FZD4 independently of Wnt signaling, suggesting alternative pathways for beta-catenin accumulation. Additionally, it may regulate neural cell differentiation and proliferation, potentially influencing neuroectodermal cell-cell interactions. As a secreted protein, Norrin functions extracellularly, positioning it as a critical signaling molecule in developmental and pathological processes.