Recombinant NDF1 protein (His tag)

Catalog Number	542637
Synonyms	NeuroD; NeuroD1; Class A basic helix-loop-helix protein 3; bHLHa3
Species	Human
Expression System	E. coli
Accession	Q13562
Molecular Weight	Predictes a molecular mass of 13.68 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 14 kDa band.

Product Information

Sequence Region	87-191
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 87-191 aa (Q13562) 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	This product is a recombinant protein fragment of Human Neurogenic differentiation factor 1 (NeuroD1), encompassing amino acids 87-191. It includes the complete bHLH (basic helix-loop-helix) domain, making it an ideal tool for researchers studying the specific DNA-binding and transcriptional activation functions of this critical neurogenic regulator. Neurogenic differentiation factor 1 (NeuroD1) functions as a transcriptional activator that binds to E-box promoter sequences (5'-CANNTG-3') to regulate gene expression. It associates with the p300/CBP coactivator complex to stimulate transcription of genes such as secretin and the cyclin-dependent kinase inhibitor CDKN1A. NeuroD1 plays essential roles in multiple cell differentiation pathways, contributing to the development of retinal ganglion cells, inner ear sensory neurons, cerebellar and hippocampal granule cells, pancreatic endocrine cells, and intestinal enteroendocrine cells. It is also involved in dendrite morphogenesis in the cerebellar cortex and associates with chromatin at enhancer elements of key neurogenesis regulators. The protein localizes to both the cytoplasm and nucleus, with nuclear shuttling observed in pancreatic islet cells in response to glucose stimulation.