

Anti-Neuro D antibody



Description Rabbit polyclonal to Neuro D.

Model STJ94426

Host Rabbit

Reactivity Human, Mouse, Rat

Applications ELISA, WB

Immunogen Synthesized peptide derived from human Neuro D around the non-

phosphorylation site of S274.

Immunogen Region 210-290 aa

Gene ID <u>4760</u>

Gene Symbol NEUROD1

Dilution range WB 1:500-1:2000ELISA 1:5000

Specificity Neuro D Polyclonal Antibody detects endogenous levels of Neuro D protein.

Purification The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Note For Research Use Only (RUO).

Protein Name Neurogenic differentiation factor 1 NeuroD NeuroD1 Class A basic helix-

loop-helix protein 3 bHLHa3

Molecular Weight 36 kDa

Clonality Polyclonal

Conjugation Unconjugated

Isotype IgG

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Concentration 1 mg/ml

Storage Instruction Store at -20°C, and avoid repeat freeze-thaw cycles.

Database Links <u>HGNC:7762OMIM:125853</u>

Alternative Names Neurogenic differentiation factor 1 NeuroD NeuroD1 Class A basic helix-

loop-helix protein 3 bHLHa3

Function Acts as a transcriptional activator: mediates transcriptional activation by

binding to E box-containing promoter consensus core sequences 5'-CANNTG-3'. Associates with the p300/CBP transcription coactivator complex to stimulate transcription of the secretin gene as well as the gene encoding the cyclin-dependent kinase inhibitor CDKN1A. Contributes to the regulation of several cell differentiation pathways, like those that promote the formation of early retinal ganglion cells, inner ear sensory neurons, granule cells forming either the cerebellum or the dentate gyrus cell layer of the hippocampus, endocrine islet cells of the pancreas and enteroendocrine cells of the small intestine. Together with PAX6 or SIX3, is required for the regulation of amacrine cell fate specification. Also required for dendrite morphogenesis and maintenance in the cerebellar cortex. Associates with chromatin to enhancer regulatory elements in genes encoding key

transcriptional regulators of neurogenesis.

Cellular Localization Cytoplasm Nucleus. In pancreatic islet cells, shuttles to the nucleus in

response to glucose stimulation. Colocalizes with NR0B2 in the nucleus.

Post-translational Phosphorylated. In islet cells, phosphorylated on Ser-274 upon glucose stimulation; which may be required for nuclear localization. In activated

neurons, phosphorylated on Ser-335; which promotes dendritic growth. Phosphorylated by MAPK1; phosphorylation regulates heterodimerization and DNA-binding activities. Phosphorylation on Ser-266 and Ser-274 increases

transactivation on the insulin promoter in glucose-stimulated insulinoma cells

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