Data Sheet (Cat.No.TMAB-09400)

TargetMol

Anti-Neuronatin Polyclonal Antibody

Product Details

Ig Type:	IgG
Reactivity:	Rat (predicted:Human,Mouse,Pig,Cow,Rabbit)
Molecular Weight:	Theoretical: 9 kDa.
Purification:	Protein A purified

Applications

Verified Activity:	Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (Neuronatin) Polyclonal Antibody, Unconjugated (TMAB-09400) at 1:400 overnight at 4°C, followed by a conjugated secondary antibody for 90 minutes, and DAPI for nuclei staining.
Application:	IHC-P,IHC-Fr,IF
Recommended	IHC-P: 1:100-500; IHC-Fr: 1:100-500; IF: 1:100-500

Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	KLH conjugated synthetic peptide: human Neuronatin
Antigen Species:	Human
Gene ID:	4826
Uniprot ID:	Q16517

Research Background

The paternally imprinted Neuronatin gene (NNAT) is initially expressed in rhombomeres and the pituitary gland and is later expressed more widely, but much less abundantly, in the central and peripheral nervous systems. The human NNAT gene maps to chromosome 20q11.23 and contains an imprinting region associated with morphological abnormalities and early neonatal lethality. Specifically, hypermethylation of the NNAT gene occurs in both myeloid and lymphoid acute pediatric leukemias and may inhibit NNAT expression. The Neuronatin protein consists of two isoforms, alpha and beta, which are the products of alternative splicing. The alpha form of the Neuronatin gene is encoded by three exons, whereas the beta form is missing the second exon. Neuronatin mRNA expression is abundant in undifferentiated PC-12 cells. Treatment of these cells with nerve growth factor (NGF), which contributes to neuronal differentiation, downregulates Neuronatin mRNA expression. NNAT (-) 1.9 PC-12 cells exhibit an increase in nigericin, rotenone and valinomcin sensitivity; NNAT transfection restores wild-type PC-12 resistance. These results suggests a potential protective role for Neuronatin against toxic insult during development.

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