bs-11519R **[Primary Antibody]**

Neuronatin Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 4826 **SWISS:** Q16517

Target: Neuronatin

Immunogen: KLH conjugated synthetic peptide derived from human Neuronatin: 31-81/81.

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

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.

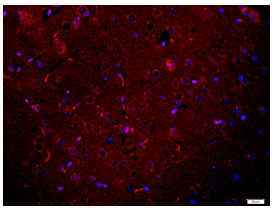
Applications: **IHC-P** (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)

Reactivity: Rat (predicted: Human, Mouse, Rabbit, Pig, Cow)

Predicted MW.: 9 kDa

Subcellular Location: Cytoplasm

VALIDATION IMAGES



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Neuronatin) Polyclonal Antibody, Unconjugated (bs-11519R) at 1:400 overnight at 4°C, followed by a conjugated secondary antibody (bs-0295G-cy3) for 90 minutes, and DAPI for nuclei staining.

SELECTED CITATIONS

- **[IF=3.575]** Liu,et al.Sodium fluoride disturbs DNA methylation of NNAT and declines oocyte quality by impairing glucose transport in porcine oocytes.(2018) Environmental and Molecular Mutagenesis. 59:223-233. IF ;Porcine. 29285797
- **[IF=4.26]** Gao et al. Oocyte aging-induced Neuronatin (NNAT) hypermethylation affects oocyte quality by impairing glucose transport in porcine. (2016) Sci.Rep. 6:36008 ICC ;Pig. 27782163
- **[IF=3.144]** Liu,et al.Cytoprotective effect and purification of novel antioxidant peptides from hazelnut (C. heterophylla Fisch) protein hydrolysates.(2018) Journal of Functional Foods. 42:203-215. WB ;Human. 10.1016/j.jff.2017.12.003