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Goat Anti-Neuregulin 3 Antibody
Peptide-affinity purified goat antibody
Catalog # AF1719a

Specification

Goat Anti-Neuregulin 3 Antibody - Product Information

Application	**WB**
Primary Accession	P56975
Other Accession	NP_001010848, 10718, 18183 (mouse)
Reactivity	**Human, Mouse, Rat**
Predicted	**Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**0.5mg/ml**
Isotype	**IgG**
Calculated MW	**77901**

Goat Anti-Neuregulin 3 Antibody - Additional Information

Gene ID 10718

Other Names
Pro-neuregulin-3, membrane-bound isoform, Pro-NRG3, Neuregulin-3, NRG-3, NRG3

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-Neuregulin 3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-Neuregulin 3 Antibody - Protein Information

Name NRG3

Function
Direct ligand for the ERBB4 tyrosine kinase receptor. Binding results in ligand-stimulated tyrosine phosphorylation and activation of the receptor. Does not bind to the EGF receptor, ERBB2 or ERBB3 receptors. May be a survival factor for oligodendrocytes.

Cellular Location
[Pro-neuregulin-3, membrane-bound isoform]: Cell membrane; Single-pass type I membrane

protein. Note=Does not seem to be active. [Isoform 3]: Cell membrane; Single-pass type I membrane protein. Note=Isoform 3 is also proteolytically released as a soluble form

Tissue Location
Highly expressed in most regions of the brain with the exception of corpus callosum. Expressed at lower level in testis Not detected in heart, placenta, lung, liver, skeletal muscle, kidney, pancreas, spleen, thymus, prostate, ovary, small intestine, colon and peripheral blood leukocytes

Goat Anti-Neuregulin 3 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-Neuregulin 3 Antibody - Images

AF1719a (0.3 µg/ml) staining of Human Brain (Cerebellum) lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-Neuregulin 3 Antibody - Background

This gene is a member of the neuregulin gene family. This gene family encodes ligands for the transmembrane tyrosine kinase receptors ERBB3 and ERBB4 - members of the epidermal growth factor receptor family. Ligand binding activates intracellular signaling cascades and the induction of cellular responses including proliferation, migration, differentiation, and survival or apoptosis. This gene encodes neuregulin 3 (NRG3). NRG3 has been shown to activate the tyrosine phosphorylation of its cognate receptor, ERBB4, and is thought to influence neuroblast proliferation, migration and differentiation by signalling through ERBB4. NRG3 also promotes mammary differentiation during embryogenesis. Linkage studies have implicated this gene as a susceptibility locus for schizophrenia and schizoaffective disorder. Alternative splicing results in multiple transcript variants encoding distinct isoforms. Additional transcript variants have been described but their biological validity has not been verified.

Goat Anti-Neuregulin 3 Antibody - References

Common genetic variation in Neuregulin 3 (NRG3) influences risk for schizophrenia and impacts NRG3 expression in human brain. Kao WT, et al. Proc Natl Acad Sci U S A, 2010 Aug 31. PMID 20713722. Variation at the NFATC2 Locus Increases the Risk of Thiazolinedinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086. Neuregulin 3 (NRG3) as a susceptibility gene in a schizophrenia subtype with florid delusions and relatively spared cognition. Morar B, et al. Mol Psychiatry, 2010 Jun 15. PMID 20548296. Comprehensive copy number variant (CNV) analysis of neuronal pathways genes in psychiatric disorders identifies rare variants within patients. Saus E, et al. J Psychiatr Res, 2010 Apr 14. PMID 20398908. Personalized smoking cessation: interactions between nicotine dose, dependence and quit-success genotype score. Rose JE, et al. Mol Med, 2010 Jul-Aug. PMID 20379614.