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CNTNAP2 Recombinant Rabbit mAb

Catalog # AP100039

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q9UHC6
Other Accession	Q9UHC6
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Recombinant
Calculated MW	148167
Physical State	Liquid
Immunogen	A synthesized peptide derived from human CNTNAP2
Epitope Specificity	1300-1331/1331
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	10mM phosphate buffered saline(pH 7.4) with 150mM sodium chloride, 0.05% BSA, 0.02% Proclin300 and 50% glycerol.
SIMILARITY	Belongs to the neurexin family.Contains 2 EGF-like domains.Contains 1 F5/8 type C domain.Contains 1 fibrinogen C-terminal domain.Contains 4 laminin G-like domains.
SUBUNIT	Associates with KCNA2.
DISEASE	Defects in CNTNAP2 are the cause of cortical dysplasia-focal epilepsy syndrome (CDFES) [MIM:610042]. Affected individuals manifest cortical dysplasia, focal epilepsy, relative macrocephaly, and diminished deep-tendon reflexes. Intractable focal seizures begin in early childhood, after which language regression, hyperactivity, impulsive and aggressive behavior, and mental retardation develop. Genetic variations in CNTNAP2 influences susceptibility to autism type 15 (AUTS15) [MIM:612100]. Autism is a neurodevelopmental disorder characterized by disturbance in language, perception and socialization. The disorder is classically defined by a triad of limited or absent verbal communication, a lack of reciprocal social interaction or responsiveness, and restricted, stereotypical, and ritualized patterns of interests and behavior. Note=A chromosomal aberration involving CNTNAP2 is found in a patient with autism spectrum disorder. Paracentric inversion 46,XY,inv(7)(q11.22;q35). The inversion breakpoints disrupt the genes AUTS2 and CNTNAP2.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Required for gap junction formation (Probable). Required, with CNTNAP1, for radial and longitudinal organization of myelinated axons. Plays a role in the formation of functional distinct domains critical for saltatory conduction of nerve impulses in myelinated nerve fibers. Demarcates the juxtaparanodal region of the axo-glial junction.

Additional Information

Gene ID	26047
Other Names	AUTS15; CASPR2; CDFE; NRXN4; PTHSL1; 5430425M22Rik; mKIAA0868; CNTP2_HUMAN; CNTNAP2; Cell recognition molecule Caspr2; KIAA0868; CNTP2_MOUSE; contactin associated protein 2; contactin associated protein like 2
Dilution	WB=1:500-2000,IHC-P=1:50-200,IHC-F=1:50-200,IF=1:50-200
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	CNTNAP2
Synonyms	CASPR2 {ECO:0000303|PubMed:10624965}, KI
Function	Required for gap junction formation (Probable). Required, with CNTNAP1, for radial and longitudinal organization of myelinated axons. Plays a role in the formation of functional distinct domains critical for saltatory conduction of nerve impulses in myelinated nerve fibers. Demarcates the juxtaparanodal region of the axo-glial junction.
Cellular Location	Membrane {ECO:0000250|UniProtKB:Q9CPW0}; Single- pass type I membrane protein. Cell projection, axon {ECO:0000250|UniProtKB:Q9CPW0}. Cell junction, paranodal septate junction {ECO:0000250|UniProtKB:Q9CPW0}. Note=Expressed in the juxtaparadonal region. {ECO:0000250|UniProtKB:Q9CPW0}
Tissue Location	Predominantly expressed in nervous system.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.