



Qty: 100 µg/400 µl

Rabbit anti-Yotiao

For Research Use Only

Catalog No. 36-0300

Lot No. See product label

Rabbit anti-Yotiao

FORM

This polyclonal antibody is supplied as a 400 µl aliquot at a concentration of 0.25 mg/ml in phosphate buffered saline (pH 7.4) containing 0.1% sodium azide. The antibody is epitope-affinity-purified from rabbit antiserum.

PAD: ZMD.252

IMMUNOGEN

Synthetic peptide derived from the C-terminal region of the human Yotiao protein.

SPECIFICITY

This antibody reacts with the Yotiao protein. On Western blots of fetal mouse brain, a clear single band at ~230 kDa is observed. On Western blots of AsPC-1 lysates and rat brain homogenates, multiple bands at other molecular weights have also been observed.

REACTIVITY

Reactivity has been confirmed with AsPC-1 (human pancreatic adenocarcinoma) cell lysates and rat brain tissue homogenates, in addition to fetal mouse brain homogenates.

Sample	Western Blotting	ELISA
Human	++	ND
Mouse	+++	ND
Rat	++	ND
Immunogen	N/A	+++

(Excellent +++, Good++, Poor +, No reactivity 0, Not applicable N/A, Not Determined ND)

USAGE

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

ELISA: 0.1-1.0 µg/ml
Western Blotting: 1-3 µg/ml

STORAGE

Store at 2-8°C for up to one month. Store at -20°C for long-term storage. Avoid repeated freezing and thawing.

(cont'd)

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PI360300

(Rev 10/08) DCC-08-1089

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BACKGROUND

Yotiao is a novel cytoskeletal protein specifically concentrated in the neuromuscular junction and neuronal synapses that interacts with specific splice variants of NMDA Receptor Subunit NR1 in a C1 exon cassette-dependent manner.¹ Yotiao has also been shown to physically attach the type I protein phosphatase (PP1) and the adenosine 3',5'-mono-phosphate (cAMP)-dependent protein kinase (PKA) holoenzyme to NMDA receptors to regulate channel activity.²

NMDA receptors are involved with many important functions and dysfunctions of the nervous system, including synapse formation, synaptic plasticity, and excitotoxicity. Yotiao research may lead to a clearer understanding of these neural processes by explaining how NMDA receptors are targeted to particular synapses, how this localization is regulated during development and synaptic activity, and how NMDA receptor activity is transduced into intracellular signals responsible for particular neuronal responses.¹

Human tissue distribution studies with yotiao mRNA revealed that yotiao is abundantly present in skeletal muscle and pancreas, with lower expression in heart, placenta, and brain. Yotiao mRNA was undetectable in lung, liver, and kidney.¹

REFERENCES

1. Lin JW, et al. *J Neurosci* 18(6): 2017-2027, 1998.
2. Westphal RS, et al. *Science* 285(5424): 93-6, 1999.

RELATED PRODUCTS

Product	Clone/PAD*	Cat. No.
Mouse anti-NMDA-Receptor 1	54.1	32-0500
Mouse anti-Calmodulin	CaM85	13-6900
Rabbit anti-Calmodulin	Polyclonal	61-8500
Protein A	Sepharose® 4B	10-1041
rec-Protein G	Sepharose® 4B	10-1241

*PAD: Polyclonal Antibody Designation

Conjugate	ZyMAX™ Goat x Rabbit IgG (H+L)	ZyMAX™ Goat x Mouse IgG (H+L)
Purified	81-6100	81-6500
FITC	81-6111	81-6511
TRITC	81-6114	81-6514
Cy™3	81-6115	81-6515
Cy™5	81-6116	81-6516
HRP	81-6120	81-6520
AP	81-6122	81-6522
Biotin	81-6140	81-6540

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