Qty: 100 µg

Mouse anti-NMDAR2A

Catalog No. 32-0600

Lot No.

Mouse anti-NMDA Receptor Subunit 2A

FORM
The antibody is supplied as a 200 µl aliquot at a concentration of 0.5 mg/ml in PBS, pH 7.4, containing 0.1% sodium azide. This monoclonal antibody is highly purified from mouse ascites by protein A chromatography.

CLONE: A3-2D10 **ISOTYPE:** IgG_1

IMMUNOGEN
NMDA R2A fusion protein.

SPECIFICITY
This antibody specifically detects the approximately ~163 kDa NMDA receptor subunit 2A.

REACTIVITY
This antibody is confirmed reactive with human, rat, dog, and monkey NMDAR2A. Reactivity with other species is not assured.

					Transfected Cells	
Sample	**ELISA**	**Immuno-staining (frozen)**	**Immuno-precipitation (native)**	**Western Blotting**	**Western Blotting**	**Immuno-staining**
Human			+	+	+	+
Rat		+		+	+	
Dog				+		+
Monkey		+		+		
Immunogen	+					

blank cells-not determined

USAGE[(1)]
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: 1-5 µg/ml
Immunoprecipitation: 5-10 µg/IP reaction
Immunostaining: 5-10µg/ml
Western Blotting: 1-5 µg/ml

The suitability of this antibody for applications other than those listed here is not assured.

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

BACKGROUND
N-methyl-D-Aspartate (NMDA) type receptors are glutamate-activated calcium channels that play central roles in brain function and disease. Activation of NMDA receptors leads to elevations in synaptic calcium levels, initiating a series of calcium dependent signaling events including activation of nitric oxide synthase and stimulation of calcium/calmodulin dependent protein kinase, and MAP kinase cascades. Through these signal transduction pathways, NMDA receptors mediate both synaptic plasticity and learning and memory.

(cont'd)

BACKGROUND (cont'd)

NMDA receptors are composed of multiple subunits. The subunits are thought to co-assemble in different combinations to form functionally distinct NMDA receptors. All receptors contain an NR1 subunit and various numbers of NR2 subunits. NR2b is the major subunit expressed in adult forebrain. NR2 is also a major component of the postsynaptic density in hippocampus and cerebral cortex. The NR1 subunit is encoded by a single gene, which undergoes extensive alternative splicing to generate eight different splice forms. The NR2 subunit class consists of four genes encoding the subunits NR2A-NR2D.

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REFERENCES

Sucher, N. J., et al., Trends Pharmacol. Sci. 17, 348-355 (1996).
Varney, M.A., et. al. Pharm and Exp. Thera., 279:367 (1996).

RELATED PRODUCTS

Product	*Clone/PAD**	*Cat. No.*
Rb x NMDA NR1 splice variant N1	--	51-4300
Rb x NMDA NR1 splice variant C1	--	51-4400
Rb x NMDA NR1 splice variant C2	--	51-4500
Rb x NMDA NR1 splice variant C2"	--	51-4600
Rb x NMDA-Receptor 1	2NR2	51-3600
Ms x NMDA-Receptor 1	54.1	32-0500
Ms x NMDA-Receptor 2B	B3-13A11	32-0700
Rb x NMDA Receptor 2B	2K11	71-8600
Rb x NMDA NR2C	--	51-4700
Ms x GluR1, 2 and 3	2D8	32-0100
Ms x GluR2	6C4	32-0300
Ms x GluR2 and 4	3A11	32-0200
Rb x mGluR4	ZTS4	51-3100
Ms x Glutamate Transporter EAAC1	35-A9	32-1000
CBα-2	---	13-7300
Ms x β-CaM Kinase II	CBβ-1	13-9800
Sheep x Dopamine β-Hydroxylase	--	51-5500
Ms x Dopamine Receptor 3	38A	32-0900
Rb x Glycine Receptor	--	51-5300
Ms x Nitrotyrosine	HM11	32-1900
Rb x Serotonin	--	18-0077
Rb x Synapsin-1	--	51-5200
Rb x Synaptophysin	Z66	18-0130
Ms x Tyrosine Hydroxylase	1hy1	32-2100
Ms x Ubiquitin	Ubi-1	13-1600

*PAD-Polyclonal Antibody Designation

Product	*Conjugate*	*Cat. No.*
Protein A	Sepharose® 4B	10-1041
rec-Protein G	Sepharose® 4B	10-1241

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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