ARG10762
anti-MeCP2 phospho (Ser421) antibody [2E2]

Package: 50 µl
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [2E2] recognizes MeCP2 phospho (Ser421)
Tested Reactivity	Ms
Tested Application	Dot, ICC/IF, IHC-FoFr
Host	Mouse
Clonality	Monoclonal
Clone	2E2
Isotype	IgG1
Target Name	MeCP2
Species	Human
Immunogen	KLH-conjugated synthetic phosphopeptide around Ser421 of Human MeCP2.
Conjugation	Un-conjugated
Alternate Names	MRXSL; RS; MeCp2; Methyl-CpG-binding protein 2; MeCp-2 protein; RTT; AUTSX3; RTS; MRX79; PPMX; MRXS13; MRX16

Application Instructions

Application table

Application	Dilution
Dot	Assay-dependent
ICC/IF	1:1000 - 1:2000
IHC-FoFr	1:1000 - 1:2000

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

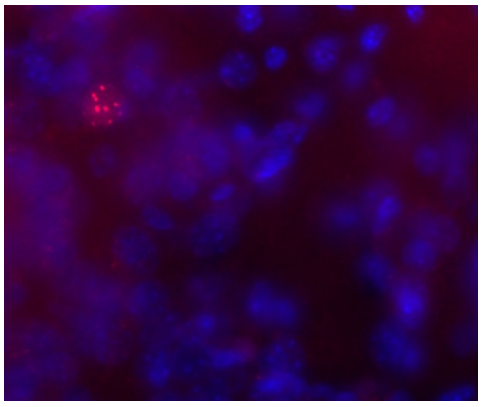
Properties

Form	Liquid
Purification	Affinity purification.
Buffer	PBS and 50% Glycerol.
Stabilizer	50% Glycerol
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

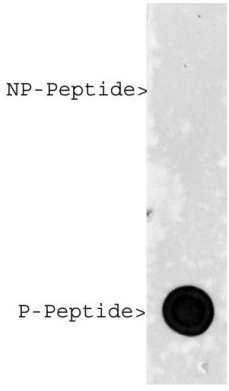
Database links	GeneID: 17257 Mouse Swiss-port # Q9Z2D6 Mouse
Gene Symbol	MECP2
Gene Full Name	methyl CpG binding protein 2
Background	DNA methylation is the major modification of eukaryotic genomes and plays an essential role in mammalian development. Human proteins MECP2, MBD1, MBD2, MBD3, and MBD4 comprise a family of nuclear proteins related by the presence in each of a methyl-CpG binding domain (MBD). Each of these proteins, with the exception of MBD3, is capable of binding specifically to methylated DNA. MECP2, MBD1 and MBD2 can also repress transcription from methylated gene promoters. In contrast to other MBD family members, MECP2 is X-linked and subject to X inactivation. MECP2 is dispensible in stem cells, but is essential for embryonic development. MECP2 gene mutations are the cause of most cases of Rett syndrome, a progressive neurologic developmental disorder and one of the most common causes of mental retardation in females. [provided by RefSeq, Jul 2009]
Function	Chromosomal protein that binds to methylated DNA. It can bind specifically to a single methyl-CpG pair. It is not influenced by sequences flanking the methyl-CpGs. Mediates transcriptional repression through interaction with histone deacetylase and the corepressor SIN3A. Binds both 5-methylcytosine (5mC) and 5-hydroxymethylcytosine (5hmC)-containing DNA, with a preference for 5-methylcytosine (5mC). [UniProt]
Calculated Mw	52 kDa
PTM	Phosphorylated on Ser-423 in brain upon synaptic activity, which attenuates its repressor activity and seems to regulate dendritic growth and spine maturation.

Images



ARG10762 anti-MeCP2 phospho (Ser421) antibody [2E2] ICC/IF image

Immunocytochemistry: Mouse brain section, which was cut at 45 µM on a vibratome after perfusion with 4% parformaldehyde and overnight fixation, was stained with ARG10762 anti-MeCP2 phospho (Ser421) antibody [2E2] at 1:1000 dilution. Phospho-MeCP2 at S421 was mainly associated with methylated DNA in nucleus of activated neuron cells (red). Blue shows DAPI staining of nuclear DNA. .



ARG10762 anti-MeCP2 phospho (Ser421) antibody [2E2] Dot image

Dot blot: 0.5 µg of Phospho-peptide or Non Phospho-peptide stained with ARG10762 anti-MeCP2 phospho (Ser421) antibody [2E2] on nitrocellulose membrane.