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Datasheet for 600-401-X14

MeCP2 Phospho S421 Antibody

Overview

Description:	Anti-MeCP2 pS421 (RABBIT) Antibody - 600-401-X14
Item No.:	600-401-X14
Size:	100 µL
Applications:	WB
Reactivity:	Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	MeCP2 (Methyl-CpG Binding Protein 2) is a chromosomal protein that binds to methylated DNA. It can bind specifically to a single methyl-CpG pair and is not influenced by sequences flanking the methyl-CpGs. MeCP2 has been shown to mediate transcriptional repression through interaction with histone deacetylase and the corepressor SIN3A. Defects in MeCP2 are the cause of Rett syndrome (RTT). RTT is an X-linked dominant disease; it is a progressive neurologic developmental disorder and one of the most common causes of mental retardation in females. Recent studies have reported a new phosphorylation site at Ser421. Phosphorylation and dephosphorylation of this site may be involved in regulation of behavioral responses to chronic antidepressant treatment. MeCP2 pS421 Antibody is ideal for researchers interested in neuroscience research.
Synonyms:	Methyl-CpG-binding protein 2, MeCp-2 protein
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	Mecp2
Reactivity:	Mouse, Rat
PTM Specificity:	Phosphorylation

Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-Phospho-Ser421 MeCP2 Antibody was produced in rabbits by repeated immunizations with a synthetic phospho-peptide corresponding to amino acid residues surrounding Ser421 of mouse MeCP2 protein conjugated to KLH.
Purity/Specificity:	Anti-Phospho-Ser421 MeCP2 Antibody is directed against MeCP2 protein phosphorylated at S421. The antibody was prepared from monospecific antiserum by immunoaffinity chromatography using phospho peptide coupled to agarose beads followed by solid phase adsorption(s) against non-phospho peptide and non-specific peptide to remove any unwanted reactivities. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Rabbit Serum. This antibody is specific for phosphorylated MeCP2. Minimal reactivity occurs against non-phosphorylated MeCP2. Reactivity against MeCP2 occurs from mouse sources. However, reactivity is also expected against human and non-human primate.
Relevant Links:	• UniProtKB - Q9Z2D6 • GeneID - 17257 • NCBI - NP_001075448.1

Application Details

Tested Applications:	WB
Application Note:	Anti-Phospho-Ser421 MeCP2 Antibody is tested for Western Blots and is specific for the ~55 kDa truncated MeCP2 protein phosphorylated at Ser421. Immunolabeling of the MeCP2 band is blocked by preadsorption with the phospho-peptide used as antigen but not by the corresponding dephospho-peptide. Specific conditions for reactivity should be optimized by the end user.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000
WB:	1:1000

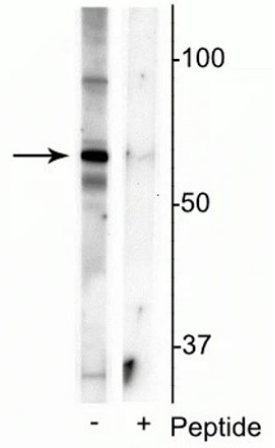
Formulation

Physical State:	Liquid (sterile filtered)
Buffer:	0.01 M HEPES, 0.15 M Sodium Chloride, pH 7.5
Preservative:	None
Stabilizer:	0.1 mg/ml Bovine Serum Albumin (BSA) - IgG and Protease free, 50% (v/v) Glycerol

Shipping & Handling

Shipping Condition:	Wet Ice
Storage Condition:	Store vial at -20° C prior to opening in undiluted aliquots. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western Blot
Western blot of Anti-MeCP2 pS421 Antibody.
Mouse whole brain lysate showing specific immunolabeling of the ~55 kDa truncated MeCP2 protein phosphorylated at Ser421 in the first lane (-). Phosphospecificity is shown in the second lane (+) where immunolabeling is blocked by preadsorption of the phosphopeptide used as the antigen, but not by the corresponding non-phosphopeptide (not shown).

References

- Wang H et al. The osteogenic niche is a calcium reservoir of bone micrometastases and confers unexpected therapeutic vulnerability. *Cancer Cell.* (2018)

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