ARG11114
anti-MeCP2 antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Chicken Polyclonal antibody recognizes MeCP2
Tested Reactivity	Hu, Ms, Rat
Tested Application	IHC-Fr, WB
Host	Chicken
Clonality	Polyclonal
Isotype	IgY
Target Name	MeCP2
Species	Human
Immunogen	Recombinant full-length 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
IHC-Fr	1:1000 - 1:2000
WB	1:10000 - 1:20000

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

Properties

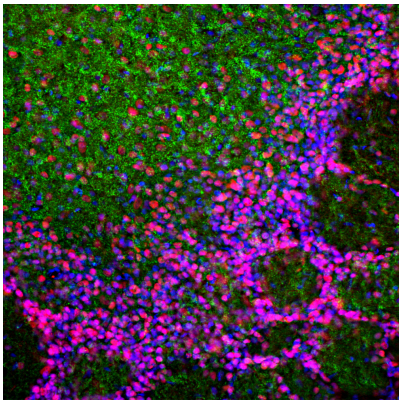
Form	Liquid
Buffer	PBS and 5 mM Sodium azide.
Preservative	5 mM Sodium azide
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw 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

Gene Symbol	MECP2

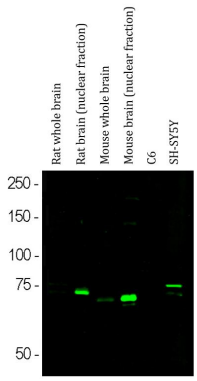
Gene Full Name	methyl CpG binding protein 2
Background	DNA methylation is the major modification of eukaryotic genomes and plays an essential role in mammalian development. Human proteins MECP2, MBD1, MBD2, MBD3, and MBD4 comprise a family of nuclear proteins related by the presence in each of a methyl-CpG 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 cognitive disability in females. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Oct 2015]
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. [UniProt]
Cellular Localization	Nucleus. Note=Colocalized with methyl-CpG in the genome. Colocalized with TBL1X to the heterochromatin foci. [UniProt]

Images



ARG11114 anti-MeCP2 antibody IHC-Fr image

Immunohistochemistry: Frozen section of Rat olfactory bulb tissue stained with ARG11114 anti-MeCP2 antibody (red) at 1:2000 dilution and co-stained with ARG43207 anti-alpha Synuclein antibody [2A7] (green) at 1:1000 dilution. DAPI (blue) for nuclear staining. (Sample preparation: Following transcardial perfusion of rat with 4% paraformaldehyde, brain was post fixed for 24 hours, cut to 45 µM, and free-floating sections were stained with the above antibodies.).



ARG11114 anti-MeCP2 antibody WB image

Western blot: Rat whole brain, Rat brain (nuclear fraction), Mouse whole brain, Mouse brain (nuclear fraction), C6 and SH-SY5Y cell lysates stained with ARG11114 anti-MeCP2 antibody at 1:20000 dilution.