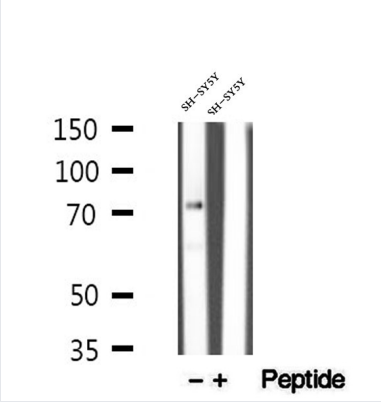
MECP2 Antibody – Rabbit Polyclonal

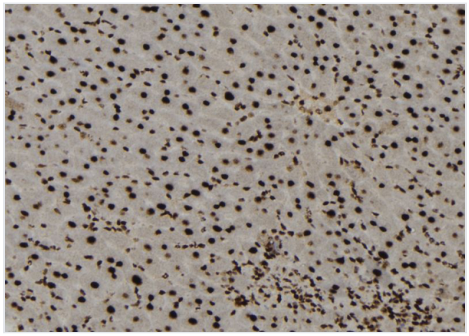
PRODUCT OVERVIEW

Product Name	MECP2, Polyclonal Antibody
Full Product Name	MECP2 Antibody
Product Gene Name	anti-MECP2 antibody
Product Synonym Names	AUTSX 3; AUTSX3; DKFZp686A24160; Mbd 5; Mbd5; MECP 2; MeCP 2 protein; MeCP-2 protein; Mecp2; MECP2_HUMAN; Methyl CpG binding protein 2 (Rett syndrome); Methyl CpG binding protein 2; Methyl-CpG-binding protein 2; MRX 16; MRX 79; MRX16; MRX79; MRXS 13; MRXS13; MRXSL; PPMX; RS; RTS; RTT; WBP 10; WBP10
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Concentration	1mg/ml (lot specific)
Specificity	MECP2 antibody detects endogenous levels of MECP2.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.
Antibody/Peptide Pairs	MeCP2 peptide (MBS9620998) is used for blocking the activity of MeCP2 antibody (MBS9603521)
Molecular Weight	Observed: 75 kDa Predicted: 53 kDa
3D Structure	ModBase 3D Structure for P51608
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Immunogen	A synthesized peptide derived from human MECP2.
Subcellular Location	Nucleus. Colocalized with methyl-CpG in the genome.
Tissue Specificity	Present in all adult somatic tissues tested.
Predicted Cross Reactivity	**Pig, Bovine, Horse, Sheep, Rabbit, Dog, Xenopus**
Similarity	Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Xenopus (83%)
Conjugation	Unconjugated
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-MECP2 antibody	Western Blot (WB), Immunohistochemistry (IHC)
Application Notes for anti-MECP2 antibody	WB: 1:500-1:2000 IHC: 1:50-1:200

Related Product Information for anti-MECP2 antibody	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). Subunit Structure: Interacts with FNBP3 (By similarity). Interacts with CDKL5 (PubMed:15917271). Interacts with ATRX; MECP2 recruits ATRX to pericentric heterochromatin in neuronal cells (By similarity). Interacts with NCOR2 (By similarity). Interacts with TBL1XR1; bridges interaction between MECP2 and NCOR1 (PubMed:28348241). Interacts with TBL1X; recuits TBL1X to the heterochromatin foci (PubMed:28348241). Post-translational Modifications: Phosphorylated on Ser-423 in brain upon synaptic activity, which attenuates its repressor activity and seems to regulate dendritic growth and spine maturation.
Other Notes	Small volumes of anti-MECP2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for MECP2 purchase	MBS9603521 is an antibody targeting MECP2. Also known as MECP2 Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit.



Western Blot (WB) of anti-MECP2 antibody
Western blot analysis of extracts of SH-SY5Y cells, using MECP2 antibody.



Immunohistochemistry (IHC) of anti-MECP2 antibody
MBS9603521 at 1/100 staining Mouse liver tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for MECP2. It may not necessarily be applicable to this product.

NCBI GI #	160707950
NCBI GeneID	4204
NCBI Accession #	NP_001104262.1
UniProt Primary Accession #	P51608
UniProt Secondary Accession #	O15233; Q6QHH9; Q7Z384
UniProt Related Accession #	P51608
GenBank Nucleotide #	NM_001110792.1
NCBI Official Full Name	methyl-CpG-binding protein 2 isoform 2
NCBI Official Synonym Full Names	methyl-CpG binding protein 2
NCBI Official Symbol	MECP2
NCBI Official Synonym Symbols	RS; RTS; RTT; PPMX; MRX16; MRX79; MRXSL; AUTSX3; MRXS13
UniProt Protein Name	Methyl-CpG-binding protein 2
Protein Family	Methyl-CpG-binding protein
UniProt Gene Name	MECP2

UniProt Synonym Gene Names	MeCp-2 protein; MeCp2
NCBI Protein Information	methyl-CpG-binding protein 2
NCBI Summary for MECP2	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]
UniProt Comments for MECP2	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).
Research Articles on MECP2	**1.** Here we report a 10-year--10-months old male patient having overlapping clinical features of MECP2 duplication syndrome, AS and ASDs. He had mental retardation, lack of speech and developmental delay, and also dysmorphic features such as plagiocephaly, retrognathia, hyperextensible joints in fingers and elbows, broad great toe and three different sizes of cafe au laits.
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