For Research Use Only

MECP2 Polyclonal antibody

Catalog Number:10861-1-AP Featured Product 14 Publications

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Basic Information

Catalog Number:
10861-1-AP

Size:
300 μg/ml

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG1309

GenBank Accession Number:
BC011612

GeneID (NCBI):
4204

UNIPROT ID:
P51608

Full Name:
methyl CpG binding protein 2 (Rett syndrome)

Calculated MW:
52 kDa, 53 kDa

Observed MW:
75 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:500-1:1000
IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
IHC 1:50-1:500
IF 1:20-1:200

Applications

Tested Applications:
FC, IF/ICC,IF-P, IHC, IP, WB, ELISA

Cited Applications:
WB, IF, IHC, ChIP

Species Specificity:
human, mouse, rat

Cited Species:
human, rat, mouse

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : MDA-MB-453s cells, human brain tissue, MCF-7 cells, mouse heart tissue, mouse lung tissue, SH-SY5Y cells, mouse ovary tissue, mouse brain tissue, rat lung tissue

IP : MCF-7 cells, HEK-293T cells

IHC : human brain tissue, rat brain tissue, human gliomas tissue, human breast cancer tissue

IF : HepG2 cells, mouse cerebellum tissue

Background Information

METHYL-CpG-BINDING PROTEIN 2(MECP2), is a chromatin-associated protein that can both activate and repress transcription. Mecp2 in the adult mouse is high in the brain, lung, and spleen, lower in heart and kidney. MECP2 takes part in the control of neuronal activity-dependent gene regulation, and this process may underlie the pathology of Rett syndrome, a severe developmental disorder with autistic phenotypes. As compared to wild-type monkeys, MECP2 transgenic monkeys exhibited a higher frequency of repetitive circular locomotion and increased stress responses, as measured by the threat-related anxiety and defensive test. 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. Two isoforms of MECP2 exist due to alternative splicing events.This antibody reacts with the MECP2 and phosphorylated MECP2 proteins. The calculated molecular weight of MECP2 is a 52 kDa, but the post-modified MECP2 protein is about 75-80 kDa (PMID: 12160743).

Notable Publications

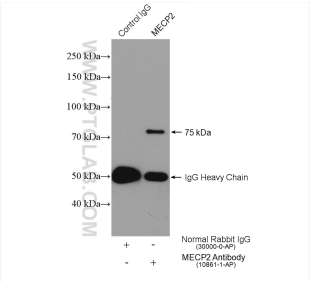
Author	Pubmed ID	Journal	Application
Gamze Ayaz	34475492	Sci Rep	ChIP
Wang Ying Y	21925646	Brain Res	WB,IHC
Jordan M Buck	32138755	Epigenetics Chromatin	WB

Storage

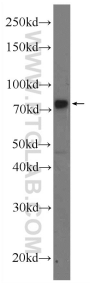
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

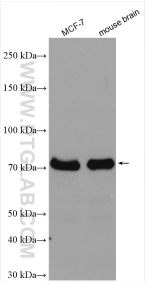
Selected Validation Data



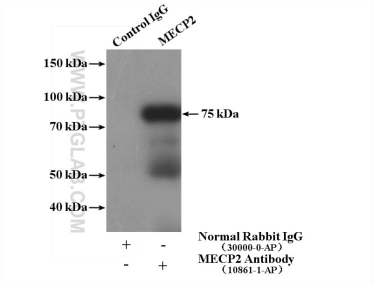
IP result of anti-MECP2 (IP:10861-1-AP, 4ug; Detection:10861-1-AP 1:500) with HEK-293T cells lysate 1640 ug.



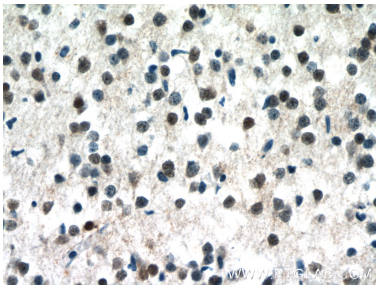
MDA-MB-453s cells were subjected to SDS PAGE followed by western blot with 10861-1-AP (MECP2 Antibody) at dilution of 1:600 incubated at room temperature for 1.5 hours.



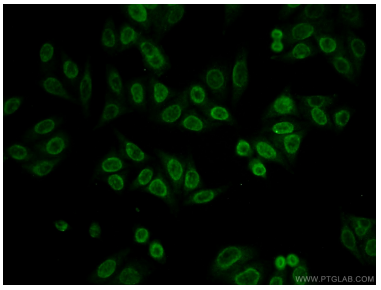
Various lysates were subjected to SDS PAGE followed by western blot with 10861-1-AP (MECP2 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



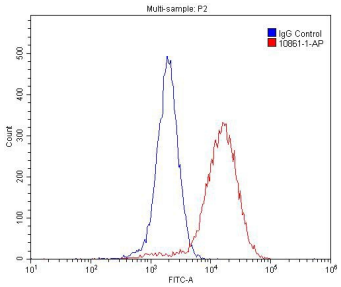
IP result of anti-MECP2 (IP:10861-1-AP, 4ug; Detection:10861-1-AP 1:500) with MCF-7 cells lysate 1280ug.



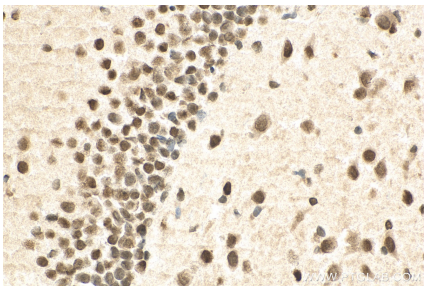
Immunohistochemical analysis of paraffin-embedded human brain tissue slide using 10861-1-AP (MECP2 Antibody) at dilution of 1:50 (under 40x lens).



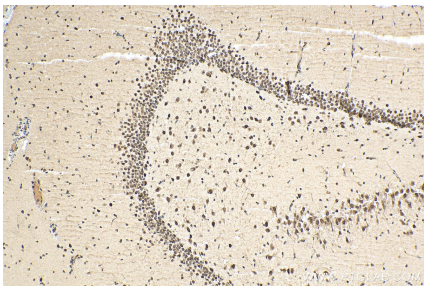
Immunofluorescent analysis of HepG2 cells using 10861-1-AP (MECP2 antibody) at dilution of 1:50 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



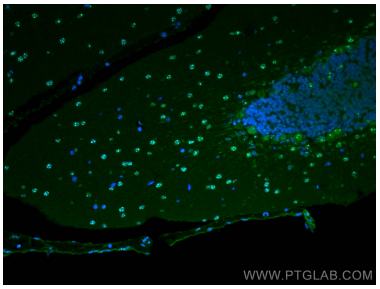
1X10^6 NIH/3T3 cells were stained with 0.2ug MECP2 antibody (10861-1-AP, red) and control antibody (blue). Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) with dilution 1:1500. Cells were fixed with 4% PFA and permeabilized with 0.1% Triton X-100.

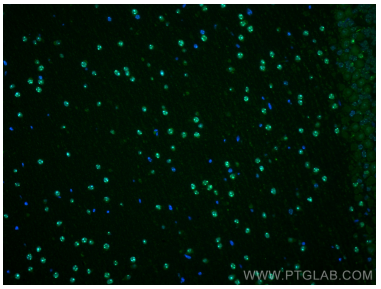


Immunohistochemical analysis of paraffin-embedded rat brain tissue slide using 10861-1-AP (MECP2 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded rat brain tissue slide using 10861-1-AP (MECP2 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).





Immunofluorescent analysis of (4% PFA) fixed mouse cerebellum tissue using MECP2 antibody (10861-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).

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