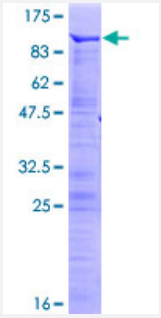
Full-Length

MECP2 (Human) Recombinant Protein (P01)

Catalog # H00004204-P01 Size 25 ug, 10 ug

Applications



Specification

Product Description	Human MECP2 full-length ORF (NP_004983.1, 1 a.a. - 486 a.a.) recombinant protein with GST-tag at N-terminal.
Sequence	MVAGMLGLREEKSEDQDLQGLKDKPLKFKKVKKDKKEEKEGKHEPVQPSAHHSAEPAEAGKA ETSEGSGSAPAVPEASASPKQRRSIIRDRGPMYDDPTLPEGWTRKLKQRKSGRSAGKYDVYLINP QGKAFRSKVELIAYFEKVGDTSLDPNDFDFTVTGRGSPSRREQKPPKKPKSPKAPGTGRGRGRP KGSGTTRPKAATSEGVQVKRVLEKSPGKLLVKMPFQTSPGGKAEGGGATTSTQVMVIKRPGRKR KAEADPQAIPKKRGRKPGSVVAAAAAEAKKKAVKESSIRSVQETVLPIKKRKTRETVSIEVKEVVK PLLVSTLGEKSGKGLKTCKSPGRKSKESSPKGRSSSASSPPKKEHHHHHHHSESPKAPVPLLP PLPPPPPEPESSEDPTSPPEPQDLSSSVCKEEKMPRGGSLESDGCPKEPAKTQPAVATAATAA EKYKHRGEGERKDIVSSSMPRPNREEPVDSRTPVTERVS
Host	Wheat Germ (in vitro)
Theoretical MW (kDa)	78.8
Preparation Method	*in vitro* wheat germ expression system
Purification	Glutathione Sepharose 4 Fast Flow
Quality Control Testing	12.5% SDS-PAGE Stained with Coomassie Blue.
Storage Buffer	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — MECP2

Entrez GeneID	4204
GeneBank Accession#	NM_004992.2
Protein Accession#	NP_004983.1
Gene Name	MECP2
Gene Alias	AUTSX3, DKFZp686A24160, MRX16, MRX79, MRXS13, MRXSL, PPMX, RTS, RTT
Gene Description	methyl CpG binding protein 2 (Rett syndrome)
Omim ID	105830 300005 300055 300260 300496 300673 312750
Gene Ontology	Hyperlink
Gene Summary	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
Other Designations	OTTHUMP00000026021|methyl CpG binding protein 2

Publication Reference

- The Cell Adhesion Molecule L1 Interacts with Methyl CpG Binding Protein 2 via Its Intracellular Domain.

  Gabriele Loers, Ralf Kleene, Maria Girbes Minguez, Melitta Schachner.

  International Journal of Molecular Sciences 2022 Mar; 23(7):3554.

  Application: ELISA, Human, Recombinant protein

- Reading ADP-ribosylation signaling using chemical biology and interaction proteomics.

  Katarzyna W Kliza, Qiang Liu, Laura W M Roosenboom, Pascal W T C Jansen, Dmitri V Filippov, Michiel Vermeulen.

  Molecular Cell 2021 Nov; 81(21):4552.

  Application: Purify, Human, Human Peptide

- MeCP2 Regulates Gene Expression Through Recognition of H3K27me3.

  Wooje Lee, Jeeho Kim, Jung-Mi Yun, Takbum Ohn, Qizhi Gong.

  Nature Communications 2020 Jun; 11(1):3140.

  Application: PI, Pull-Down, WB-Re, Recombinant proteins

- An electrochemiluminescence based assay for quantitative detection of endogenous and exogenously applied MeCP2 protein variants.

  Steinkellner H, Schönegger A, Etzler J, Kempaiah P, Huber A, Hahn K, Rose K, Duerr M, Christodoulou J, Beribisky AV, Neuhaus W, Laccone F.

  Scientific Reports 2019 May; 9(1):7929.

  Application: Func, Recombinant protein

- Histone deacetylase 3 associates with MeCP2 to regulate FOXO and social behavior.

  Nott A, Cheng J, Gao F, Lin YT, Gjoneska E, Ko T, Minhas P, Zamudio AV, Meng J, Zhang F, Jin P, Tsai LH.

  Nature Neuroscience 2016 Nov; 19(11):1497.

  Application: IP-WB, Recombinant protein

Disease

- Alzheimer disease
- Angelman syndrome
- Attention Deficit Disorder with Hyperactivity
- Autistic Disorder
- Brain Diseases

- Cardiovascular Diseases
- Child Development Disorders
- Chromosome Aberrations
- Cognition Disorders
- Developmental Disabilities
- Diabetes Mellitus
- Disease Progression
- Edema
- Epilepsy
- Fractures
- Fragile X syndrome
- Genetic Diseases
- Genetic Predisposition to Disease
- Lupus Erythematosus
- Mental Disorders
- Mental Retardation
- Microcephaly
- Motor Skills
- Movement Disorders
- NARP
- Nervous System Diseases
- Obesity
- Pain
- Prader-Willi syndrome
- Psychomotor Performance
- Psychotic Disorders

- Rett syndrome
- Schizophrenia
- Scoliosis
- Seizures
- Stereotypic Movement Disorder