

Recombinant Human MBD1 protein ab152512

1 Image

Description	
Product name	Recombinant Human MBD1 protein
Expression system	Wheat germ
Accession	<u>Q9UIS9</u>
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Sequence	MAEDWLDCPALGPGWKRREVFRKSGATCGRSDTYQSP TGDRIRSKVELT RYLGPACDLTLDFDKQGILCYPAPKAHPVAVASKKRKKPS RPAKTRKRQV GPQSGEVRKEAPRDETKADTDAPASFPAPGCCENCIS FSGDGTQRQRL KTLCKDCRAQRIAFNREQRMFKRVGCGECAACQVTEDC GACSTCLLQLPH DVASGLFCKCERRRCLRMERSRGCGVCRGCQTQEDCG HCPICLRPPRPG LRRQWKCVQRRCLRGKHARRKGGCD SKMAARRRPGAQ PLPPPPPSQSPEP TEPHPRALAPSPPAEFYICVDEDELQPYTNRRQNRKCGA CAACLRRMDC GRCDFCCDKPKFGGSNQKRQKCRWRQCLQFAMKRLLP SVWSESEDGAGSP PPYRRRKRPSSARRHHLGPTLKPTLATRTAQPDHTQAPTK QEAGGGFVLP PPGTDLVFLREGASSPVQVPGPVAASTEALLQEAQCSSL SWVVALPQVKQ EKADTQDEWTPGTAVLTSPVLVPGCPSKAVDPGLPSVK QEPPDPEEDKEE NKDD SASKLAPEEEAGGAGTPVITEIFSLGGTRFRDTAVW LPRSKDLKKP GARKQ
Predicted molecular weight	93 kDa including tags
Amino acids	1 to 605
Tags	GST tag N-Terminus

Specifications

Our **Abpromise guarantee** covers the use of **ab152512** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	ELISA
	SDS-PAGE
	Western blot
Form	Liquid

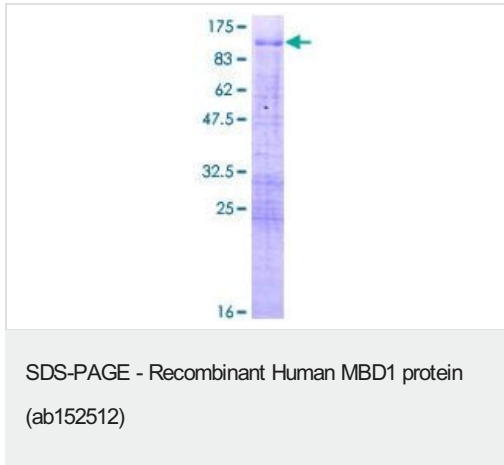
Preparation and Storage

Stability and Storage	Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles. pH: 8.00 Constituents: 0.31% Glutathione, 0.79% Tris HCl
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General Info

Function	Transcriptional repressor that binds CpG islands in promoters where the DNA is methylated at position 5 of cytosine within CpG dinucleotides. Binding is abolished by the presence of 7-mG that is produced by DNA damage by methylmethanesulfonate (MMS). Acts as transcriptional repressor and plays a role in gene silencing by recruiting AFT7IP, which in turn recruits factors such as the histone methyltransferase SETDB1. Probably forms a complex with SETDB1 and ATF7IP that represses transcription and couples DNA methylation and histone 'Lys-9' trimethylation. Isoform 1 and isoform 2 can also repress transcription from unmethylated promoters.
Tissue specificity	Widely expressed.
Sequence similarities	Contains 3 CXXC-type zinc fingers. Contains 1 MBD (methyl-CpG-binding) domain.
Domain	The methyl-CpG-binding domain (MBD) functions both in binding to methylated DNA and in protein interactions. The third CXXC-type zinc finger mediates binding to non-methylated CpG dinucleotides. The transcriptional repression domain (TRD) is involved in transcription repression and in protein interactions.
Post-translational modifications	Sumoylated with SUMO1 by PIAS1 and PIAS3. Sumoylation affects transcriptional silencing by preventing the interaction with SETDB1. In contrast, sumoylation may increase interaction with AFT7IP. Phosphorylated upon DNA damage, probably by ATM or ATR.
Cellular localization	Nucleus speckle. Chromosome. Nuclear, in a punctate pattern. Associated with euchromatic regions of the chromosomes, with pericentromeric regions on chromosome 1 and with telomeric regions from several chromosomes.

Images



12.5% SDS-PAGE analysis of ab152512 stained with Coomassie Blue.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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