

Recombinant MBD2-MBD protein

Catalog No: 81472, 81572

Expressed In: *E. coli*

Quantity: 100, 1000 µg

Concentration: 1 µg/µl

Source: Human

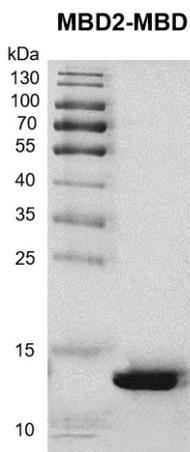
Buffer Contents: Recombinant MBD2-MBD protein is supplied in 25 mM Tris 8.0, 300mM NaCl, 20% glycerol, 0.5 mM TCEP.

Background: **MBD2 (Methyl-CpG-binding domain protein 2)** is a transcriptional repressor that binds CpG islands in promoters where the DNA is methylated at position 5 of cytosine within CpG dinucleotides. Also binds hemimethylated DNA as well and recruits histone deacetylases and DNA methyltransferases to chromatin. Acts as a component of the histone deacetylase NuRD complex which participates in the remodeling of chromatin. Functions as a scaffold protein, targeting GATAD2A and GATAD2B to chromatin to promote repression. May enhance the activation of some unmethylated cAMP-responsive promoters.

Protein Details: Recombinant MBD2-MBD protein that includes amino acids 140-219 of human MBD2 protein (accession number NP_003918.1) was expressed in *E. coli* cells with an N-terminal 6xHis tag. The molecular weight of the protein is 11.19 kDa.

Application Notes: This product was manufactured as described in Protein Details. Where possible, Active Motif has developed functional or activity assays for recombinant proteins. Additional characterization such as enzyme kinetic activity assays, inhibitor screening or other biological activity assays may not have been performed for every product. All available data for a given product is shown on the lot-specific Technical Data Sheet.

Storage and Guarantee: Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is for research use only and is not for use in diagnostic procedures. This product is guaranteed for 6 months from date of arrival.



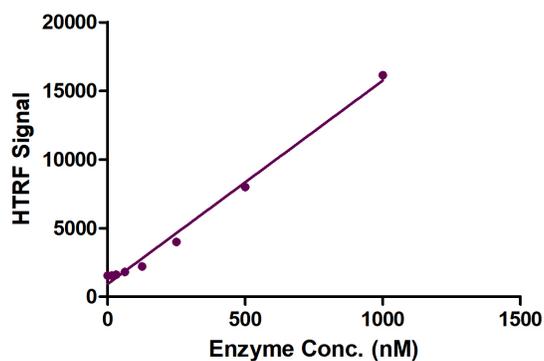
MBD2-MBD protein gel.

12.5% SDS-PAGE gel stained with Coomassie Blue.

MW: 11.19 kDa

Purity: >95%

MBD2-MBD Titration



HTRF assay for MBD2-MBD activity

1 μ M substrate DNA (5'-Biotin-GCAGCCGG/5mC/GCGAATC-3') were incubated with different concentrations of MBD2-MBD protein in HTRF binding buffer contain 50mM HEPES-NaOH pH 7.4, 0.1% BSA for 1 hour, Then 10 μ l detection reagents contain anti-His antibody (1:100) and SA-XL665 (1:100) diluted with 1 \times Detection Buffer were added and incubated for 30 min. All the operations and reactions were performed at room temperature. HTRF assay was used for detection.