



Recombinant Human Methyl-CpG-binding domain protein 4 (MBD4)

Product Code	CSB-EP013535HU-B
Storage	Store at -20°C, for extended storage, conserve at -20°C or -80°C.
Uniprot No.	O95243
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	>85% (SDS-PAGE)
Sequence	<p>MGTTGLESLS LGDRGAAPTV TSSERLVPDP PNDLRKEDVA MELERVGED E EQMMIKRSSE CNPLLQEPIA SAQFGATAGT ECRKSVPCGW ERVVKQRLFG KTAGRFDVYF ISPQGLKFRS KSSLANYLHK NGETSLKPED FDFTVLSKRG IKSRYKDCSM AALTSHLQNN SNNSNWNLRT RSKCKKDVFM PPSSSSELQE SRGLSNFTST HLLKKEDEGV DDVNFVRKVRK PKGKVTILKG IPIKTKKGC RKSCSGFVQS DSKRESVCNK ADAESEPV AQ KSQLDRTVCI SDAGACGETL SVTSEENSLV KKKERSLSSG SNFCSEQKTS GIINKFCSAK DSEHNEKYED TFLESEEIGT KVEVVERKEH LHTDILKRG S EMDNNCSPTR KDFTGEKIFQ EDTIPRTQIE RRKTSLYFSS KYNKEALSP RRAKFKK WTP PRSPFNLVQE TLFHDPWKLL IATIFLNRTS GKMAIPVLWK FLEKYPSAEV ARTADWRDVS ELLKPLGLYD LRAKTIVKFS DEYLTKQWKY PIELHGIGKY GNDSYRIFCV NEWKQVHPED HKLNKYHDWL WENHEKLSLS</p>
Source	E.coli
Target Names	MBD4
Protein Names	Recommended name: Methyl-CpG-binding domain protein 4 EC= 3.2.2.- Alternative name(s): Methyl-CpG-binding endonuclease 1 Methyl-CpG-binding protein MBD4 Mismatch-specific DNA N-glycosylase
Expression Region	1-580
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	Tag type will be determined during the manufacturing process.
Protein Length	Full length protein
Target Details	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. MBD4 may function to mediate the biological consequences of the methylation signal. In addition, MBD4 has protein sequence similarity to bacterial DNA repair enzymes and thus may have some function in DNA repair. Further, MBD4 gene mutations are detected in tumors with primary microsatellite-instability (MSI), a form of genomic instability associated with



defective DNA mismatch repair, and MBD4 gene meets 4 of 5 criteria of a bona fide MIS target gene.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.