ALPHA DIAGNOSTIC INTERNATIONAL

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Product Specification Sheet

Anti-Maltose Binding Protein (MBP) Antibodies

Cat. MBP12-A	Rabbit Anti-MBP IgG	**SIZE**: 100 ul
Cat. MBP11-C	Recombinant pure MBP protein control for WB	**SIZE**: 100 ul

Recombinant DNA technology allows the addition of short pieces of well-defined tags, "peptides" or proteins at the amino or c-terminus of target genes, which can provide 'affinity handles' designed to bind specific matrices. Therefore, tags enables a selective identification and purification of the protein of interest. The addition of a maltose binding protein (MBP) tag creates a stable fusion product that does not appear to interfere with the activity of the protein or with the cellular localization of the MBP-tagged product (1, 2). The expression of polypeptides in-frame with maltose binding protein (MBP) allows for their easy, single-step purification from bacterial extracts under mild conditions using amylose resin (2). This system utilize a specific protease digestion site to facilitate correct cleavage of the fusion protein (1). Thus, the MBP system incorporates a factor Xa cleavage site at the carboxy terminus of the MBP sequence (3) and cleavage by factor Xa separates MBP from its fusion protein. Many recombinant proteins have been engineered with MBP tags to facilitate the detection, isolation and purification of these proteins (1-6). Ant-MBP may be used in various immunoassay to identify the expression of a MBP fusion protein.

Source of Antigen and Antibodies

Antigen	purified recombinant MBP protein
Ab Host/type	Rabbit, Polyclonal antiserum IgG, purified over antigen-agarose (Cat # **(#MB12-A**)
2-Ab	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available).
-ve control IgG	Cat # 20009-1, Rabbit (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as –ve control

MBP is expressed in E. coli containing a 23-aa polylinker of pMAL-C2 and purified >95% (mol wt ~42 Kda). MBP protein for Western blot +ve control (**Cat # MBP11-C**) is supplied in SDS-PAGE sample buffer (reduced). Load 10 ul/lane of **MBP11**-C for good visibility with antibody Cat # **MBP11**-A or MBP12-M. Store at –20oC in suitable size aliquots. SDS may crystallize in cold conditions. It should redissolve by warming before taking it from the stock. It should be heated once prior to loading on gels. If the product has been stored for several weeks, then it may be preferable to add 5 ul of fresh 2x sample buffer per 10 ul of the **MBP11**-C solution prior to heating and loading on gels. This preparation is not biologically active. It is not suitable for ELISA or other applications where native protein is required. This preparation is intended for qualitative purpose and not to serve as standard of known concentration. Do not freeze, thaw, or hear repeatedly

Form & Storage of Antibodies/Peptide Control

Puriifed pure IgG
100 ug/100ul solution lyophilized powder
Supplied in **Buffer**: PBS+0.1% BSA
Reconstitute powder in PBS at 1mg/ml

Storage

Short-term: unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC..

Long-term: at –20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at –20oC or below.
Shipping: 4oC for solutions and room temp for powder.

Recommended Usage

Western Blotting (1:1K-5K using Chemiluminescence technique). Antibodies react with native and denatured his-tag containing proteins.

ELISA (1:10-50K; using 50-100 ng control antigen/well).

Specificity and crossreactivity

Monoclonal Anti-MBP recognizes native and denatured-reduced forms of MBP-fusion proteins in immunoblotting, dot blot and ELISA.

General. **References:** Guan, C., et al., Gene, 67, 21 (1988), Maina, C., et al., Gene, 74, 365 (1988), Rodriguez, P., and Carrasco, L., Biotechniques, 18, 238 (1995), Narayanan, S., J. Chromatogr., 658, 237 (1994), Olins, P., and Lee, S., Curr. Opin. Biotechnol. 4, 520 (1993), Uhlen, M., and Moks, T., Meth. Enzymol., 185, 129 (1990).

*This product is for In vitro research use only.

Other Fusion tag antibodies available from ADI

Catalog#	ProdDescription
MBP11-AP	Monoclonal Anti-Maltose binding protein (MBP)-AP conjugate
MBP11-C	Maltose binding protein (MBP) (fusion tag) control for western
MBP11-HRP	Monoclonal Anti-Maltose binding protein (MBP)-HRP
MBP11-M	Monoclonal Anti-Maltose binding protein (MBP) (fusion tag)
MBP12-A	Anti-Maltose binding protein (MBP) (fusion tag) IgG
MBP15-R-100	Maltose binding protein (MBP) (fusion tag) control for
MBP15-R-1000	Maltose binding protein (MBP) (fusion tag) control for

Anti-MBP, Poly-His, GST, beta-Gal, VSV-G, HA-tag, and c-myc

Anti-MBP, Poly-His, GST, beta-Gal, VSV-G, Flag, HA-tag, and c-myc

MBP12-A 71216A

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