

## Datasheet for 000-001-385-5

**Maltose Binding Protein (MBP) Control Protein****Overview**

|                      |                                                               |
|----------------------|---------------------------------------------------------------|
| <b>Description:</b>  | Maltose Binding Protein (MBP) Control Protein - 000-001-385-5 |
| <b>Item No.:</b>     | 000-001-385-5                                                 |
| <b>Size:</b>         | 5 mg                                                          |
| <b>Applications:</b> | SDS-PAGE, WB                                                  |
| <b>Expressed in:</b> | E. coli                                                       |

**Product Details**

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Background:</b>   | Maltose-Binding Protein (MBP) is a part of the maltose/maltodextrin system of Escherichia coli, which is responsible for the uptake and efficient catabolism of maltodextrins. It is a complex regulatory and transport system involving many proteins and protein complexes. MBP has an approximate molecular mass of 42.5 kilodaltons. MBP is used to increase the solubility of recombinant proteins expressed in E. coli. In these systems, the protein of interest is often expressed as a MBP-fusion protein, preventing aggregation of the protein of interest. |
| <b>Synonyms:</b>     | control protein, MBP, Maltose Binding Protein                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Expressed in:</b> | E. coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

**Target Details**

|                            |                                                                                                                |
|----------------------------|----------------------------------------------------------------------------------------------------------------|
| <b>Purity/Specificity:</b> | Maltose binding protein is expressed in Escherichia coli and chromatographically purified using amylose resin. |
| <b>Relevant Links:</b>     | <ul style="list-style-type: none"><li>• <a href="#">000-001-385 SDS</a></li></ul>                              |

**Application Details**

|                             |              |
|-----------------------------|--------------|
| <b>Tested Applications:</b> | SDS-PAGE, WB |
|-----------------------------|--------------|

**Application Note:** Maltose-Binding Protein is suitable for use as a control in many assays including affinity purification, western blot and other biological assays. Optimal concentration should be determined by the researcher. Expect MW of MBP~51kDa consisting of multiple cloning sites from vector (MCS) and the MBP; molecular weight of MBP at ~40kDa. Maltose-Binding Protein has been tested in SDS-page and western blot.

**Assay Dilutions:** All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.

## Formulation

**Physical State:** Liquid (sterile filtered)

**Concentration:** 5.0 mg/mL by UV absorbance at 280 nm

**Buffer:** 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

**Preservative:** 0.01% (w/v) Sodium Azide

**Stabilizer:** None

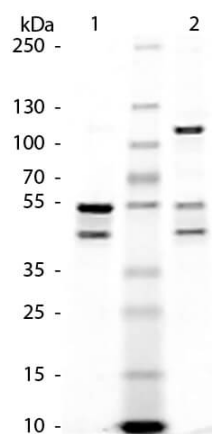
## Shipping & Handling

**Shipping Condition:** Dry Ice

**Storage Condition:** Store vial at -20 °C prior to opening. Aliquot contents and freeze at -20 °C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4 °C as an undiluted liquid. Dilute only prior to immediate use.

**Expiration:** Expiration date is six (6) months from date of receipt.

## Images



#### SDS-PAGE

SDS-Page of Maltose Binding Protein (MBP) Control Protein.  
 Lane 1: Maltose Binding Protein – Reduced. Lane 2:  
 Maltose Binding Protein – Non-Reduced. Load: 1.0 µg per  
 lane. Molecular weight of multiple cloning sites from vector  
 (MCS) and the MBP shown at ~51kDa; molecular weight of  
 MBP at ~40kDa.

## Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.