

Datasheet for 200-406-385S

Maltose Binding Protein (MBP) Epitope Tag Antibody Biotin Conjugated

Overview

Description:	Anti-Maltose Binding Protein (MBP) Epitope Tag (RABBIT) Antibody Biotin Conjugated - 200-406-385S
Item No.:	200-406-385S
Size:	25 µL
Applications:	ELISA, WB
Reactivity:	MBP-Tag
Host Species:	Rabbit

Product Details

Background:	Epitope tags are short peptide sequences that are easily recognized by tag-specific antibodies. Due to their small size, epitope tags do not affect the tagged protein's biochemical properties. Most often sequences encoding the epitope tag are included with target DNA at the time of cloning to produce fusion proteins containing the epitope tag sequence. This allows anti-epitope tag antibodies to serve as universal detection reagents for any tag containing protein produced by recombinant means. This means that anti-epitope tag antibodies are a useful alternative to generating specific antibodies to identify, immunoprecipitate or immunoaffinity purify a recombinant protein. The anti-epitope tag antibody is usually functional in a variety of antibody-dependent experimental procedures. Expression vectors producing epitope tag fusion proteins are available for a variety of host expression systems including bacteria, yeast, insect and mammalian cells. Rockland Immunochemicals produces anti-epitope tag antibodies against many common epitope tags including Myc, GST, GFP, 6X His, MBP, FLAG and HA. Rockland Immunochemicals also produces antibodies to other tags including FITC, Rhodamine (TRITC), DNP and biotin.
Synonyms:	rabbit anti-MBP Epitope Tag Antibody biotin conjugation, rabbit anti-Maltose Binding Protein Antibody biotin conjugated
Host Species:	Rabbit
Conjugate:	Biotin
Clonality:	Polyclonal
Format:	IgG

Target Details

Reactivity:	MBP-Tag
Immunogen Type:	Recombinant Protein
Immunogen:	This antibody was purified from whole rabbit serum prepared by repeated immunizations with the MBP epitope tag recombinant protein.
Purity/Specificity:	This IgG purified antibody is directed against MBP and is useful in determining its presence in various assays. This polyclonal anti-MBP tag antibody detects over-expressed proteins containing the MBP epitope tag. To date this antibody has reacted with all MBP tagged proteins so far tested. In western blotting of bacterial extracts the antibody does not cross-react with endogenous proteins.

Application Details

Tested Applications:	ELISA, WB
Application Note:	Anti-MBP Biotin Conjugated Antibody is optimally suited for monitoring the expression of MBP tagged fusion proteins. As such, anti-MBP/MBP can be used to identify fusion proteins containing the MBP epitope. The antibody recognizes the MBP epitope tag fused to the amino- or carboxy- termini of targeted proteins. This antibody has been tested by ELISA and western blotting against MBP containing recombinant proteins. Although not tested, this antibody is likely functional for immunoprecipitation and immunocytochemistry, and other immunodetection techniques. Maltose binding protein is a bacterial protein, which is often used in protein expression studies because it creates a stable fusion product that does not appear to interfere with the bioactivity of the protein of interest. It also allows for its easy purification from bacterial extracts under mild conditions. Anti-MBP is a companion to the pMAL protein expression system and can be used for the detection and purification of MBP-fusion proteins expressed in E. coli. By Western blot, a band is seen at ~ 42 kDa representing MBP.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000-1:50,000
WB:	1:1,000-1:5,000

Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.0 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: 10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free

Shipping & Handling

Shipping Condition: Dry Ice

Storage Condition: Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.

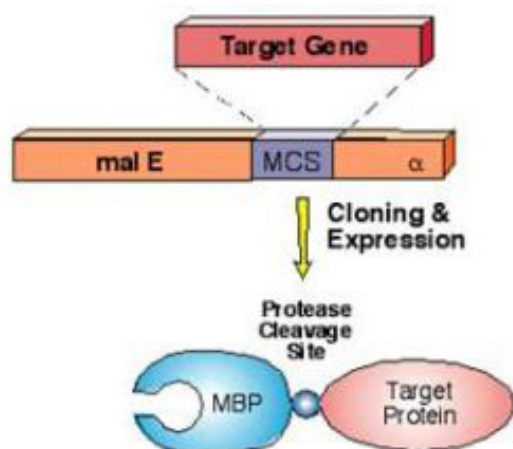
Expiration: Expiration date is one (1) year from date of receipt.

Images



Western Blot

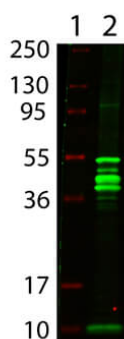
Anti-MBP epitope tag polyclonal antibody detects MBP-tagged recombinant proteins by western blot. Polyclonal rabbit-anti-MBP epitope tag at 0.5-1.0 µg/ml was used to detect 1.0 µg of recombinant protein containing the MBP epitope tag. The apparent molecular weight of this band is 42 kDa. A minor band at corresponding to multimers of this protein is also evident. A 4-20% gradient gel was used to separate the protein by SDS-PAGE. The protein was transferred to nitrocellulose using standard methods. After blocking the membrane was probed with the primary antibody for 1 h at room temperature followed by washes and reaction with a 1:2500 dilution of IRDye 800 conjugated Gt-a-Rabbit IgG [H&L] (code 611-132-122) for 30 min at room temperature. LICOR's Odyssey® Infrared Imaging System was used to scan and process the image. Other detection systems will yield similar results.



Pathway

Western Blot

Western Blot showing detection of Maltose Binding Protein (MBP) (0.05 µg) in Lane 2. MW markers indicated in Lane 1. Protein was run on a 4-20% gel and transferred to 0.45 µm nitrocellulose. After blocking with 1% BSA-TTBS (p/n MB-013, diluted to 1X) 30 min at 20°C Anti-MBP (RABBIT) antibody (p/n 200-401-385) was used at 1:1000 overnight at 4°C. Anti-Rabbit IgG (GOAT) IRDye800® conjugated antibody (p/n 611-131-002) secondary antibody was used at 1:20,000 in Blocking Buffer for Fluorescent Western Blotting (p/n MB-070) for 30 min at 20°C and imaged on the LiCor Odyssey imaging system. A band is present at the correct molecular weight, ~42 kDa, the other bands present are recombinant MBP breakdown.



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.