Datasheet for ABIN103913

anti-MBP Tag antibody

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Overview

Quantity:	1 mg
Target:	MBP Tag
Reactivity:	Please inquire
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	Un-conjugated
Application:	Western Blotting (WB), ELISA, Immunoprecipitation (IP)

Product Details

Immunogen:	This antibody was purified from whole rabbit serum prepared by repeated immunizations with the MBP epitope tag Recombinant Immunogentype:Recombinant
Isotype:	IgG
Characteristics:	Concentration Definition: by UV absorbance at 280 nm

Target Details

Target:	MBP Tag
Alternative Name:	Maltose Binding Protein (MBP) Tag
Target Type:	Tag
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.

Target Details

	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. Supplier produces anti-epitope tag antibodies against many common epitope tags including Myc, GST, GFP, 6X His, MBP, FLAG and HA. Supplier also produces antibodies to other tags including FITC, Rhodamine (TRITC), DNP and biotin.

Application Details

Application Notes:	Anti-MBP 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.
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Restore with deionized water (or equivalent)
Concentration:	1.0 mg/mL
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	Sodium azide

Handling

Precaution of Use:	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C

Publications

Product cited in:	González, Stival, Puzzolo, Moreno, Vila: "Shaping Substrate Selectivity in a Broad-Spectrum Metallo-β-Lactamase." in: **Antimicrobial agents and chemotherapy**, Vol. 62, Issue 4, (2019) (PubMed). Johnson, Lee, Myler, Zhou, Mosley, Yang, Uprety, Kim, Paull: "Homeodomain Proteins Directly Regulate ATM Kinase Activity." in: **Cell reports**, Vol. 24, Issue 6, pp. 1471-1483, (2018) (PubMed).

Images

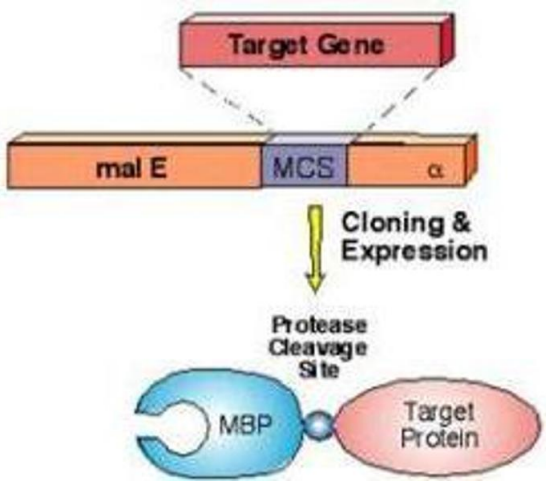
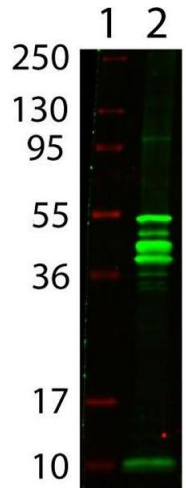


Image 1. Simplified diagram of MBP-fusion protein construct using pMal expression vector system.



Western Blotting

Image 2. 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 , diluted to 1X) 30 min at 20°C Anti-MBP (RABBIT) antibody was used at 1:1000 overnight at 4°C. Anti-Rabbit IgG (GOAT) conjugated antibody secondary antibody was used at 1:20,000 in Blocking Buffer for

Fluorescent Western Blotting 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.