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Datasheet for 200-901-D81

Myelin Basic Protein (MBP) Antibody

Overview

Description:	Anti-Myelin Basic Protein (MBP) (Chicken) Antibody - 200-901-D81
Item No.:	200-901-D81
Size:	100 µL
Applications:	IF, WB
Reactivity:	Human, Mouse, Rat, Bovine
Host Species:	Chicken

Product Details

Background:	Myelin Basic Protein antibody detects MBP. MBP is one of the major proteins of the myelin sheath surrounding axons in the nervous system. Since it is of relatively low molecular weight and high abundance the protein sequence was determined from purified protein over 30 years ago. The protein is made by oligodendrocytes in the central nervous system, so antibodies to MBP are good markers of this cell type. However, transcripts from the same gene are also expressed in certain hematopoetic lineage cells. In the central nervous system there are there different forms of the protein made by alternate transcription from a single gene, which have molecular weights of 21.5, 18.5, and 17.2 kDa. Since the two lower molecular weight forms are very close in molecular size, MBP antibodies typically show two bands on Western blots, one at about 22kDa and another at about 18kDa. Anti-MBP antibody is ideal for investigators involved in Cell Signaling, Neuroscience, and Signal Transduction research.
Synonyms:	Myelin A1 protein, Myelin membrane encephalitogenic protein, Myelin basic protein, MBP, Myelin basic protein S, MBP S antibody
Host Species:	Chicken
Clonality:	Polyclonal
Format:	IgY

Target Details

Gene Name:	Mbp
Reactivity:	Human, Mouse, Rat, Bovine

Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-Myelin basic protein Antibody was produced in chicken by repeated immunizations with three peptide sequences conserved in higher vertebrate MBP proteins.
Purity/Specificity:	Anti-MBP antibody is directed against Myelin basic protein. The antibody is a total IgY fraction. The antibody has been directly tested for reactivity in bovine, human, mouse and rat tissues. Cross reactivity with MBP from other mammalian tissues is expected.
Relevant Links:	• GeneID - 24547 • UniProtKB - P02688 • NCBI - NP_001020465.1

Application Details

Tested Applications:	IF, WB
Application Note:	Anti-Myelin Basic Protein antibody is tested for use in Western Blotting and IF. Expect a bands of approximately 18 kDa and 22 kDa in size corresponding to MBP proteins in Western blots of rat brain homogenate. Specific conditions for reactivity should be optimized by the end user.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
IF:	1:500
WB:	1:5000

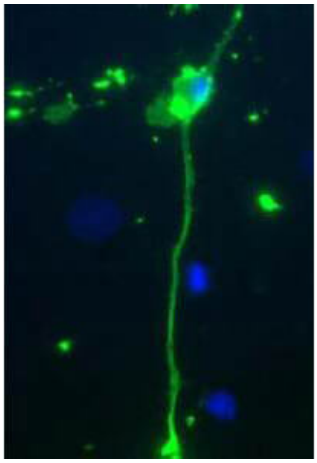
Formulation

Physical State:	Liquid
Concentration:	Titrated value sufficient to run approximately 10 mini blots.
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide

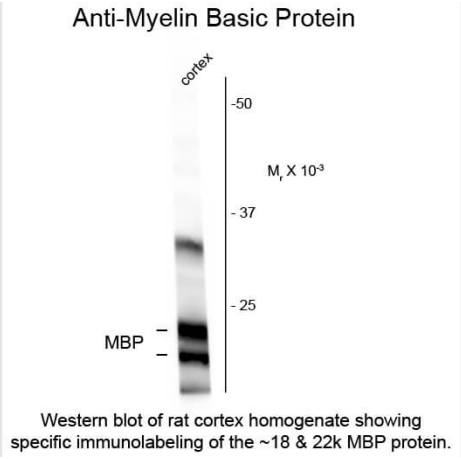
Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. This product is stable at 4° C as an undiluted liquid. For extended storage, aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Immunofluorescence Microscopy
Immunofluorescence Microscopy of Chicken Anti-Myelin Basic Protein (MBP) Antibody. Tissue: Rat mixed neuron/glial cultures. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: MBP antibody at 10 µg/mL for 1 h at RT. Secondary antibody: Fluorescein chicken secondary antibody at 1:10,000 for 45 min at RT. Localization: MBP is cytoplasmic. Staining: chicken anti-Myelin Basic Protein (green). Blue is a DNA stain. Note that the Myelin Basic Protein antibody stains an oligodendrocyte and some membrane shed from this cell. Other cells in the field include neurons, astrocytes, microglia and fibroblasts, all of which are completely negative.



Western blot of rat cortex homogenate showing specific immunolabeling of the ~18 & 22k MBP protein.

Western Blot
Western Blot of Anti-Myelin Basic Protein (MBP) (Chicken) Antibody. Lane 1: rat cortex homogenate. Lane 2: none. Load: 10 µg per lane. Primary antibody: MBP antibody at 1:400 for overnight at 4°C. Secondary antibody: IRDye800™ chicken secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: ~ 18kDa and 22kDa MBP protein. Other band(s): none.

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.