Order online now!

www.rockland.com
tech@rockland.com
+1 484.791.3823

Datasheet for 200-901-D68

Microtubule Associated Protein 2 (MAP2) Antibody

Overview

Description:	Anti-Microtubule Associated Protein 2 (MAP2) (Chicken) Antibody - 200-901-D68
Item No.:	200-901-D68
Size:	100 µL
Applications:	IHC, WB
Reactivity:	Human, Mouse, Rat, Bovine
Host Species:	Chicken

Product Details

Background:	MAP2 antibody detects Microtubule Associated Protein 2. Microtubules are 25nm diameter protein rods found in most kinds of eukaryotic cells. They are polymerized from a dimeric subunit made of one a subunit and one b tubulin subunit. Microtubules are associated with a family of proteins called microtubule associated proteins (MAPs), which includes the protein τ (tau) and a group of proteins referred to as MAP1, MAP2, MAP3, MAP4 and MAP5. MAP2 is made up of two ~280kDa apparent molecular weight bands referred to as MAP2a and MAP2b. A third lower molecular weight form, usually called MAP2c, corresponds to a pair of protein bands running at ~70kDa on SDS-PAGE gels. All these MAP2 forms are derived from a single gene by alternate transcription, and all share a C-terminal sequence which includes either three or four microtubule binding peptide sequences, which are very similar to those found in the related microtubule binding protein τ (tau). MAP2 isoforms are expressed only in neuronal cells and specifically in the perikarya and dendrites of these cells. MAP2 has been recently shown to be the specific receptor for the neurosteroid pregnenolone.
Synonyms:	Microtubule-associated protein 2, MAP2, MAP-2,Map2, Map-2
Host Species:	Chicken
Clonality:	Polyclonal
Format:	IgY

Target Details

Gene Name:	MAP2
Reactivity:	Human, Mouse, Rat, Bovine

Immunogen Type:	Native Protein
Immunogen:	Anti-Microtubule Associated Protein 2 Antibody was produced in chicken by repeated immunizations with recombinant bovine MAP2 protein expressed in and purified from E. Coli.
Purity/Specificity:	Anti-MAP2 antibody is directed against MAP2 protein. The antibody is a total IgY fraction. The antibody has been directly tested for reactivity in bovine, human, mouse and rat tissues. It is expected that the antibody will react with other mammalian tissues. Cross reactivity with MAP2 from other species has not been determined.
Relevant Links:	• UniProtKB - P11137 • GeneID - 4133 • NCBI - DAA32510.1

Application Details

Tested Applications:	IHC, WB
Application Note:	Anti-Microtubule Associated Protein 2 antibody is tested for use in Western Blotting, ICC, and IHC. Specific conditions should be optimized by the end user. Expect a band of approximately 280 kDa in size corresponding to MAP2 proteins in Western blots in the appropriate cell lysate or extract.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
IF:	1:2500
WB:	1:20000

Formulation

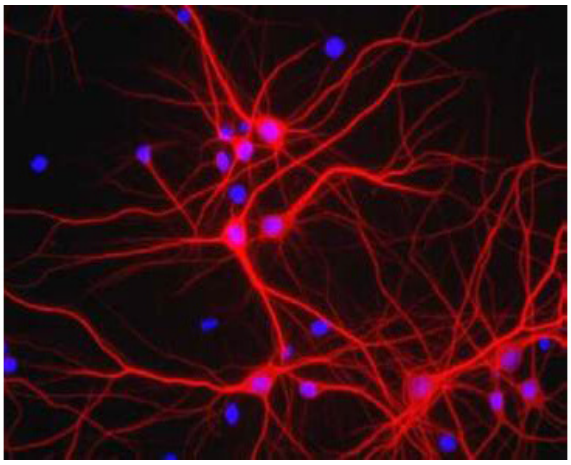
Physical State:	Liquid
Concentration:	titrated reagent Sufficient to run approximately 10 miniblots
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide

Shipping & Handling

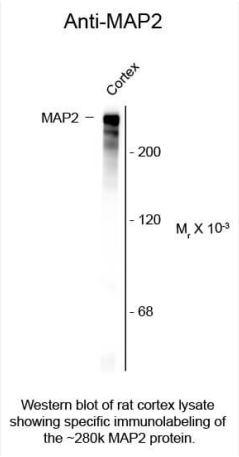
Shipping Condition:	Dry Ice

Storage Condition:	Store vial at -20° C prior to opening. 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 one (1) year from date of receipt.

Images



Immunofluorescence Microscopy
Immunofluorescence Microscopy of Chicken Anti-Microtubule Associated Protein 2 (MAP2) Antibody. Tissue: Mixed neuron/glial cultures. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: MAP2 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: MAP2 is neuronal. Staining: The perikarya and dendrites of neurons are strongly and specifically stained with the MAP2 antibody (red). Cell nuclei are visualized with DAPI DNA stain.



Western blot of rat cortex lysate showing specific immunolabeling of the ~280k MAP2 protein.

Western Blot
Western Blot of Anti-Microtubule Associated Protein 2 (MAP2) (Chicken) Antibody. Lane 1: rat cortex lysate. Lane 2: none. Load: 10 µg per lane. Primary antibody: MAP 2 antibody at 1:400 for overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C.
Predicted/Observed size: ~280kDa MAP-2 protein. Other band(s): none.

References

- Liu Y et al. Chromogranin A promotes the pathological conversion of α-synuclein at the synapse in Parkinson's disease. *Cell Rep.* (2025)

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.