

## ARG11089 anti-MAP2ab antibody

Package: 50 μl Store at: -20°C

# Summary

| Product Description | Goat Polyclonal antibody recognizes MAP2ab  |
|---------------------|---|
| Tested Reactivity   | Ms, Rat   |
| Tested Application  | IHC-Fr, WB  |
| Specificity         | The antibody detects MAP2a and MAP2b isoforms but not the MAP2c and MAP2d which lack projection domain sequences. |
| Host                | Goat  |
| Clonality           | Polyclonal  |
| Isotype             | lgG   |
| Target Name         | MAP2ab  |
| Species             | Human   |
| Immunogen           | Recombinant protein corresponding to aa. 377-1505 (projection domain sequence) of Human MAP2.                     |
| Conjugation         | Un-conjugated   |
| Alternate Names     | MAP2A; Microtubule-associated protein 2; MAP2B; MAP-2   |

# **Application Instructions**

| Application table | Application  | Dilution   |
|-------------------|--|--|
|                   | IHC-Fr   | 1:1000 - 1:2000  |
|                   | WB   | 1:2000   |
| Application Note  | * The dilutions indicate recomme<br>should be determined by the scie | nded starting dilutions and the optimal dilutions or concentrations ntist. |

# Properties

| Form                | Liquid  |
|---------------------|---|
| Purification        | Purified  |
| Buffer              | PBS, 5 mM Sodium azide and 50% Glycerol.  |
| Preservative        | 5 mM Sodium azide   |
| Stabilizer          | 50% Glycerol  |
| Concentration       | 1 mg/ml   |
| Storage instruction | For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use. |
| Note                | For laboratory research only, not for drug, diagnostic or other use.  |

## Bioinformation

| Gene Symbol           | MAP2   |
|-----------------------|--|
| Gene Full Name        | microtubule-associated protein 2   |
| Background            | This gene encodes a protein that belongs to the microtubule-associated protein family. The proteins of this family are thought to be involved in microtubule assembly, which is an essential step in neurogenesis. The products of similar genes in rat and mouse are neuron-specific cytoskeletal proteins that are enriched in dentrites, implicating a role in determining and stabilizing dentritic shape during neuron development. A number of alternatively spliced variants encoding distinct isoforms have been described. [provided by RefSeq, Jan 2010] |
| Function              | The exact function of MAP2 is unknown but MAPs may stabilize the microtubules against depolymerization. They also seem to have a stiffening effect on microtubules. [UniProt]  |
| Highlight             | Related products:<br><u>MAP2 antibodies;</u> <u>MAP2 Duos / Panels;</u> <u>Anti-Goat IgG secondary antibodies;</u><br>Related news:<br><u>Astrocyte-to-neuron conversion for Parkinson's disease treatment</u>   |
| Research Area         | Controls and Markers antibody; Neuroscience antibody; Signaling Transduction antibody; Neuron<br>Marker antibody; Mature Neuron Marker antibody; Neurite Marker antibody   |
| Calculated Mw         | 200 kDa  |
| PTM                   | Phosphorylated at serine residues in K-X-G-S motifs by MAP/microtubule affinity-regulating kinase (MARK1 or MARK2), causing detachment from microtubules, and their disassembly (By similarity). Isoform 2 is probably phosphorylated by PKA at Ser-323, Ser-354 and Ser-386 and by FYN at Tyr-67. The interaction with KNDC1 enhances MAP2 threonine phosphorylation (By similarity). [UniProt]   |
| Cellular Localization | Cytoplasm, cytoskeleton. Cell projection, dendrite. [UniProt]  |

### Images



#### ARG11089 anti-MAP2ab antibody IHC-Fr image

Immunohistochemistry: Frozen section of Rat brain stem tissue stained with ARG11089 anti-MAP2ab antibody (red) at 1:2000 dilution, and costained with <u>ARG10722</u> anti-Myelin Basic Protein antibody [7D2] (green) at 1:5000 dilution. (Sample preparation: Following transcardial perfusion of Rat with 4% paraformaldehyde, brain was post fixed for 24 hours, cut to 45  $\mu$ M, and free-floating sections were stained with the above antibodies.).

The MAP2ab antibody labels perikarya and dendrites of the most neurons, notably motorneurons in the brain stem, and the MBP antibody stains myelin sheath around axons.



#### ARG11089 anti-MAP2ab antibody WB image

Western blot: Rat and Mouse whole brain lysates stained with ARG11089 anti-MAP2ab antibody at 1:5000 dilution.