



Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

Store at -20C
#8707

MAP2 (D5G1) XP[®] Rabbit mAb

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, IP, IF-F	Reactivity: M R	Sensitivity: Endogenous	MW (kDa): 75, 82, 280	Source/Isotype: Rabbit IgG	UniProt ID: #P11137	Entrez-Gene Id: 4133
-------------------------------------	---------------------------	-----------------------------------	---------------------------------	--------------------------------------	-------------------------------	--------------------------------

Product Usage Information

Application

Western Blotting
Immunoprecipitation
Immunofluorescence (Frozen)

Dilution

1:1000
1:50
1:200

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #65911.

Specificity/Sensitivity

MAP2 (D5G1) XP[®] Rabbit mAb recognizes endogenous levels of total MAP2 protein. Non-specific labeling of mouse pancreas, colon, small intestine, and liver may be observed by immunofluorescence.

Species predicted to react based on 100% sequence homology

Human

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human MAP2 protein.

Background

Microtubule-associated protein 2 (MAP2) is a neuronal phosphoprotein that regulates the structure and stability of microtubules, neuronal morphogenesis, cytoskeleton dynamics, and organelle trafficking in axons and dendrites (1). Multiple MAP2 isoforms are expressed in neurons, including high molecular weight MAP2A and MAP2B (280 and 270 kDa), and low molecular weight MAP2C and MAP2D (70 and 75 kDa). Phosphorylation of MAP2 modulates its association with the cytoskeleton and is developmentally regulated. GSK-3 and p44/42 MAP kinase phosphorylate MAP2 at Ser136, Thr1620, and Thr1623 (2,3). Phosphorylation at Thr1620/1623 by GSK-3 inhibits MAP2 association with microtubules and microtubule stability (3).

Background References

- Sanchez, C. et al. (2000) *Prog. Neurobiol.* 61, 133-168.
- Berling, B. et al. (1994) *Eur. J. Cell Biol.* 64, 120-130.
- Sanchez, C. et al. (2000) *Eur. J. Cell Biol.* 79, 252-260.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation **IF-F:** Immunofluorescence (Frozen)

Cross-Reactivity Key

M: Mouse **R:** Rat

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

XP is a registered trademark of Cell Signaling Technology, Inc.

All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no

force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.