

#8707 Store at -20C

# MAP2 (D5G1) XP® Rabbit mAb



**Cell Signaling**  
TECHNOLOGY®

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

1. Sanchez, C. et al. (2000) *Prog. Neurobiol.* 61, 133-168.
2. Berling, B. et al. (1994) *Eur. J. Cell Biol.* 64, 120-130.
3. 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

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

## Cross-Reactivity Key

**H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster  
**X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse  
**GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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