

Phospho-MEF2A (Ser408) Antibody

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H	Transfected Only	54	Rabbit	#Q02078	4205

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Storage

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

Specificity/Sensitivity

Phospho-MEF2A (Ser408) Antibody detects transfected levels of MEF2A only when phosphorylated at Ser408. The antibody has also been shown to detect phospho-MEF2A (Ser408) in granule neurons (see application reference).

Species predicted to react based on 100% sequence homology

Mouse

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser408 of human MEF2A. Antibodies are purified by protein A and peptide affinity chromatography.

Background

MEF2A is a member of the MEF2 (myocyte enhancer factor 2) family of transcription factors. In mammals, four MEF2A-related genes (MEF2A, MEF2B, MEF2C and MEF2D) encode proteins which exhibit significant amino acid sequence similarity within their DNA binding domains and to a lesser extent throughout the remaining proteins (1). The MEF2 family members were originally described as muscle-specific DNA binding proteins that recognize MEF2 motifs found within the promoters of many muscle-specific genes (2,3). Phosphorylation of MEF2A at Thr312 and Thr319 within the transcription activation domain by p38 MAP kinase enhances MEF2A-MEF2D heterodimer-dependent gene expression (4). On the other hand, apoptotic stimuli (e.g. neurotoxic insult) result in CDK5-dependent phosphorylation of MEF2A at Ser408 within the activation domain, inhibiting MEF2A pro-survival function (5).

Background References

1. Shore, P. et al. (1995) *Eur. J. Biochem.* 229, 1-13.
2. Martin, J.F. et al. (1994) *Mol. Cell. Biol.* 14, 1647-1656.
3. Yu, Y.T. et al. (1992) *Genes Dev.* 6, 1783-1798.
4. Zhao, M. et al. (1999) *Mol. Cell. Biol.* 19, 21-30.
5. Gong, X. et al. (2003) *Neuron* 38, 33-46.

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

Cross-Reactivity Key

H: Human

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