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#4154

EGR1 (44D5) Rabbit mAb

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

Applications: W, IP, IF-IC, FC-FP, ChIP, ChIP-seq	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 75	Source/Isotype: Rabbit IgG	UniProt ID: #P18146	Entrez-Gene Id: 1958
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Product Usage Information

For optimal ChIP and ChIP-seq results, use 10 µl of antibody and 10 µg of chromatin (approximately 4 x 10⁶ cells) per IP. This antibody has been validated using SimpleChIP[®] Enzymatic Chromatin IP Kits.

Application

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50
Immunofluorescence (Immunocytochemistry)	1:1600 - 1:6400
Flow Cytometry (Fixed/Permeabilized)	1:400 - 1:1600
Chromatin IP	1:50
Chromatin IP-seq	1:50

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 #54070.

Specificity/Sensitivity

EGR1 (44D5) Rabbit mAb detects endogenous levels of total EGR1 protein.

Species predicted to react based on 100% sequence homology

Bovine

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to the amino terminus of the sequence of human EGR1.

Background

EGR family members are transcriptional factors that contain three repetitive zinc finger DNA binding domains which bind to EGR response elements (ER) to regulate target gene expression (1). The expression of EGR family members is induced by growth factors, with EGR1 expression being induced by NGF (1,2). Increased EGR1 expression activates transcription of other signaling molecules, including CDK5 and tyrosine hydroxylase, and exerts long term effects on neural cell growth and differentiation (2,3).

Background References

- O'Donovan, K.J. et al. (1999) *Trends Neurosci.* 22, 167-173.
- Harada, T. et al. (2001) *Nat. Cell Biol.* 3, 453-459.
- Papanikolaou, N.A. and Sabban, E.L. (2000) *J. Biol. Chem.* 275, 26683-26689.

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-IC:** Immunofluorescence (Immunocytochemistry) **FC-FP:** Flow Cytometry (Fixed/Permeabilized) **ChIP:** Chromatin IP **ChIP-seq:** Chromatin IP-seq

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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