

ATF-3 (E9J4N) Rabbit mAb

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Applications: W, IP, IF-IC, FC-FP, ChIP	Reactivity: H M	Sensitivity: Endogenous	MW (kDa): 23, 24	Source/Isotype: Rabbit IgG	UniProt ID: #P18847	Entrez-Gene Id: 467
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Product Usage Information

For optimal ChIP results, use 5 µl of antibody and 10 µg of chromatin (approximately 4×10^6 cells) per IP. This antibody has been validated using SimpleChIP® Enzymatic Chromatin IP Kits.

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:100
Immunofluorescence (Immunocytochemistry)	1:100 - 1:400
Flow Cytometry (Fixed/Permeabilized)	1:400 - 1:1600
Chromatin IP	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 #46853.

Specificity/Sensitivity

ATF-3 (E9J4N) Rabbit mAb recognizes endogenous levels of total ATF-3 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with recombinant human ATF-3 protein.

Background

Activating transcription factor 3 (ATF-3) is a basic leucine zipper-type transcription factor belonging to the ATF/cAMP responsive element binding protein family. ATF-3 can form homodimers or heterodimers with other family members and depending on the cell types and promoter context, it can suppress or activate the transcription of its target genes (1,2). Expression of ATF-3 is induced by a variety of factors including cytokines, genotoxic agents, and physiological stress. For example, both metformin and high-density lipoprotein (HDL) can induce ATF-3 expression in macrophages (1,3-5). Research studies also indicate that ATF-3 can function as an oncogene or a tumor suppressor depending on the context (6,7).

Background References

- Hai, T. et al. (1999) *Gene Expr* 7, 321-35.
- Hai, T. and Hartman, M.G. (2001) *Gene* 273, 1-11.
- Hai, T. et al. (2010) *Gene Expr* 15, 1-11.
- De Nardo, D. et al. (2014) *Nat Immunol* 15, 152-60.
- Kim, J. et al. (2014) *J Biol Chem* 289, 23246-55.
- Yin, X. et al. (2008) *Oncogene* 27, 2118-27.
- Wang, Z. et al. (2014) *Oncogene* Advanced online publication, doi:10.1038/onc.2014.426.

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

Cross-Reactivity Key

H: Human **M:** Mouse

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