#4327 Store at –20°C

Phospho-AML1 (Ser249) Antibody

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not For Use In Diagnostic Procedures.

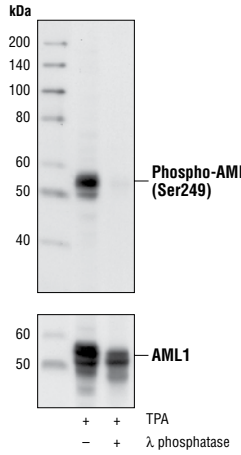
Entrez-Gene ID #861
UniProt ID #Q01196

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP, F, IF-IC Endogenous	H	55 kDa	Rabbit**

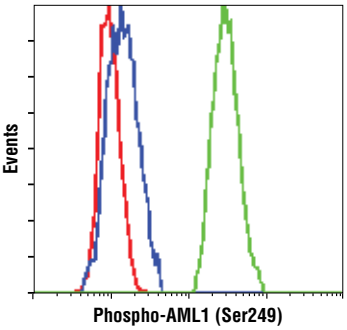
Background: AML1 (also known as Runx1, CBFA2 and PEBP2αB) is a member of the CBF (core binding factor) family of transcription factors (1,2). It is required for normal development of all hematopoietic lineages (3,4,5). AML1 forms a heterodimeric DNA binding complex with its partner protein CBFβ and regulates the expression of cellular genes by binding to promoter and enhancer elements. AML1 is commonly translocated in hematopoietic cancers: chromosomal translocations include t(8;21) AML1-ETO, t(12;21)TEL-AML and t(8;21) AML-M2 (6). Phosphorylation of AML1 on several potential serine and threonine sites, including Ser249, is thought to occur in an ERK-dependent manner (7,8).

Specificity/Sensitivity: Phospho-AML1 (Ser249) Antibody detects endogenous levels of AML1 protein only when phosphorylated on Ser249.

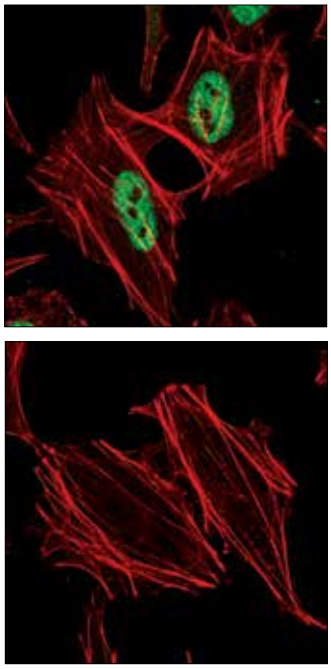
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to amino acids around Ser249 of human AML1. Antibodies are purified by protein A and peptide affinity chromatography.



Western blot analysis of extracts of TPA treated HEL cells, untreated or treated with λ phosphatase, using Phospho-AML1 (Ser249) Antibody (upper), or AML1 Antibody #4334 (lower).



Flow cytometric analysis of Jurkat cells, untreated (green) or treated with λ phosphatase (blue), using Phospho-AML1 (Ser249) Antibody compared to a nonspecific negative control antibody (red).



◀ *Confocal immunofluorescent analysis of HeLa cells, untreated or treated with λ phosphatase, using Phospho-AML1 (Ser249) Antibody (green). Actin filaments have been labeled with DyLight™ 554 Phalloidin #13054 (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).*

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.*

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:100
Immunofluorescence (IF-IC)	1:800
Flow Cytometry	1:50

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

Background References:

(1) Wang, S. et al. (1993) *Mol. Cell. Biol* .13, 3324–3339.
(2) Ogawa, E. et al. (1993) *Proc. Natl. Acad. Sci. USA* 90, 6859–6863.
(3) Okuda, T. et al. (1996) *Cell* 84, 321–330.
(4) Wang, Q. et al. (1996) *Proc. Natl. Acad. Sci. USA* 93, 3444–3449.
(5) North, T.E. et al. (2004) *Stem Cells* 22, 158–168.
(6) Blyth, K. et al. (2005) *Nat. Rev. Cancer* 5, 376–387.
(7) Tanaka, T. et al. (1996) *Mol. Cell. Biol.* 16, 3967–3979.
(8) Zhang, Y. et al. (2004) *J. Biol. Chem.* 279, 53116–53125.

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

Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide
Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **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 **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.