

**#5849** Store at -20°C

# GFI1b (D3G2) Rabbit mAb



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| Applications<br>W<br>Endogenous | Species Cross-Reactivity*<br>H, M, R, Mk | Molecular Wt.<br>35, 42 kDa | Isotype<br>Rabbit IgG** |
|---------------------------------|--|-----------------------------|-------------------------|
|---------------------------------|--|-----------------------------|-------------------------|

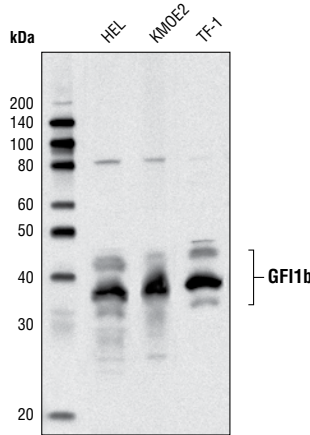
**Background:** GFI1b and its homolog GFI1 are transcriptional repressors and important regulators of erythroid and megakaryocytic development and differentiation (1,2). GFI1b negatively regulates transcription by recruiting chromatin regulatory proteins including CoREST, the histone demethylase LSD1 and HDACs 1 and 2, which associate with GFI1b via its SNAG repression domain (3). GFI1b has also been shown to control the differentiation of erythroid and megakaryocytic progenitors by regulating TGF- $\beta$  signaling at the bipotent progenitor stage (4). Inactivation of GFI1b in mice leads to embryonic lethality due to failure to produce functional erythrocytes and megakaryocytes (2). The GFI1b gene locus can be autoregulated by binding to its own promoter in hematopoietic cells, likely through interacting with GATA-1, another transcription factor essential for erythroid and megakaryocytic development (5). Mutations in GFI1b are implicated in various leukemias (6) and GFI1b has been found in a complex with GATA-1 and SUZ12 on repressed genes in erythroleukemia cells (7).

**Specificity/Sensitivity:** GFI1b (D3G2) Rabbit mAb recognizes endogenous levels of total GFI1b protein.

**Source/Purification:** Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Tyr119 of human GFI1b protein.

**Background References:**

- (1) Duan, Z. and Horwitz, M. (2003) *Hematology* 8, 339-44.
- (2) Saleque, S. et al. (2002) *Genes Dev* 16, 301-6.
- (3) Saleque, S. et al. (2007) *Mol Cell* 27, 562-72.
- (4) Randrianarison-Huetz, V. et al. (2010) *Blood* 115, 2784-95.
- (5) Vaziri, K. et al. (2005) *South Med J* 98, 825-6.
- (6) Elmaagacli, A.H. et al. (2007) *Br J Haematol* 136, 212-9.
- (7) Yu, M. et al. (2009) *Mol Cell* 36, 682-95.



Western blot analysis of extracts from various cell lines using GFI1b (D3G2) Rabbit mAb.

**Entrez-Gene ID** #8328  
**Swiss-Prot Acc.** #Q5VTD9

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100  $\mu$ g/ml BSA, 50% glycerol and less than 0.02% sodium azide. 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

**For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).**

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**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.**

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**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.