

#5849 Store at -20°C

GFI1b (D3G2) Rabbit mAb


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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, FC-FP	H M R Mk	Endogenous	35, 42	Rabbit IgG	#Q5VTD9	8328

Product Usage Information

Application

Western Blotting

Flow Cytometry (Fixed/Permeabilized)

Dilution

1:1000

1:400 - 1:1600

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.

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

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-β 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).

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.

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

WB: Western Blotting **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **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
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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