Store at -20°C

#96098

GATA-3 (E2N1Y) Mouse mAb

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New 07/18

Entrez-Gene ID #2625
UniProt ID #P23771

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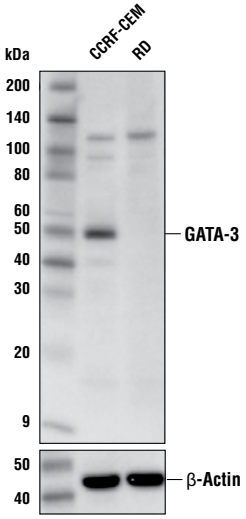
Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IHC-P, IF-IC, F Endogenous	H	50 kDa	Mouse IgG1

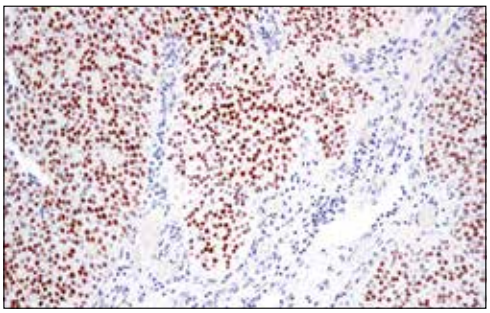
Background: GATA proteins comprise a group of transcription factors that are related by the presence of conserved zinc finger DNA binding domains, which bind directly to the nucleotide sequence core element GATA (1-3). There are six vertebrate GATA proteins, designated GATA-1 to GATA-6 (3).GATA-3 is a critical regulator of development of various systems in both mouse and human (4). GATA-3 null mouse embryos die between E11 and E12 due to growth retardation and deformities in the brain and spinal cord (5). The function of GATA-3 has been extensively studied in T cell development and has recently been shown to be a downstream target of Notch in Notch-mediated differentiation of TH2 cells (6,7). It is expressed in both hematopoietic and non-hematopoietic tissues, including the kidney, skin, mammary gland, and central nervous system (8-10). Decreased expression of GATA-3 in luminal breast cancer is associated with poor clinical outcome. GATA-3 expression level may therefore be a promising prognostic biomarker (11). Haploinsufficiency of GATA-3 results in Barakat syndome in humans, a condition characterized by sensorineural deafness and renal dysplasia (12).

Specificity/Sensitivity: GATA-3 (E2N1Y) Mouse mAb recognizes endogenous levels of total GATA-3 protein.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human GATA-3 protein.



Western blot analysis of extracts from CCRF-CEM and RD cells using GATA-3 (E2N1Y) Mouse mAb (upper) and β-Actin (D6A8) Rabbit mAb #8457 (lower). As expected RD cells show low to negative expression of GATA-3.



Immunohistochemical analysis of paraffin-embedded human urothelial carcinoma using GATA-3 (E2N1Y) Mouse mAb.

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.*

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

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

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunohistochemistry (Paraffin)	1:400
Optimal IHC dilutions determined using SignalStain® Boost IHC Detection Reagent.	
Unmasking buffer: SignalStain® Citrate Unmasking Solution (10X) #14746	
Antibody diluent: SignalStain® Antibody Diluent #8112	
Detection reagent: SignalStain® Boost (HRP, Mouse) #8125	
Immunofluorescence (IF-IC)	1:100
Fixative:	4% Formaldehyde
Permeabilization:	0.3% Triton X-100
Flow Cytometry	1:100

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com.

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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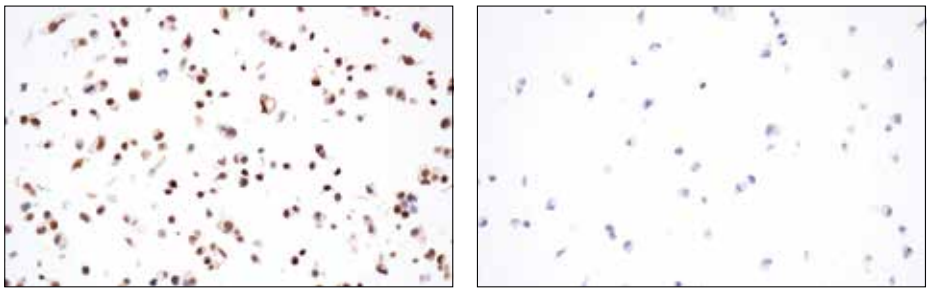
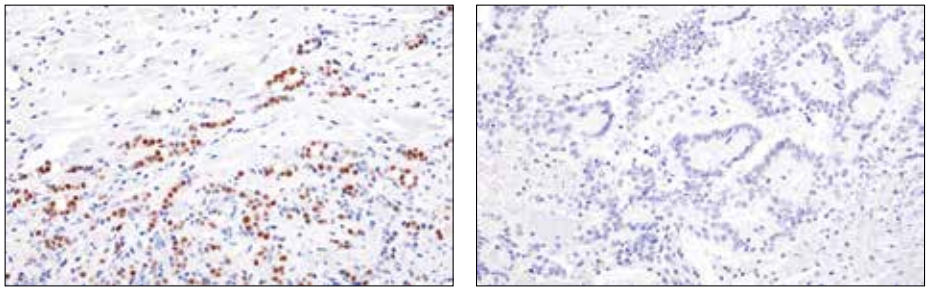
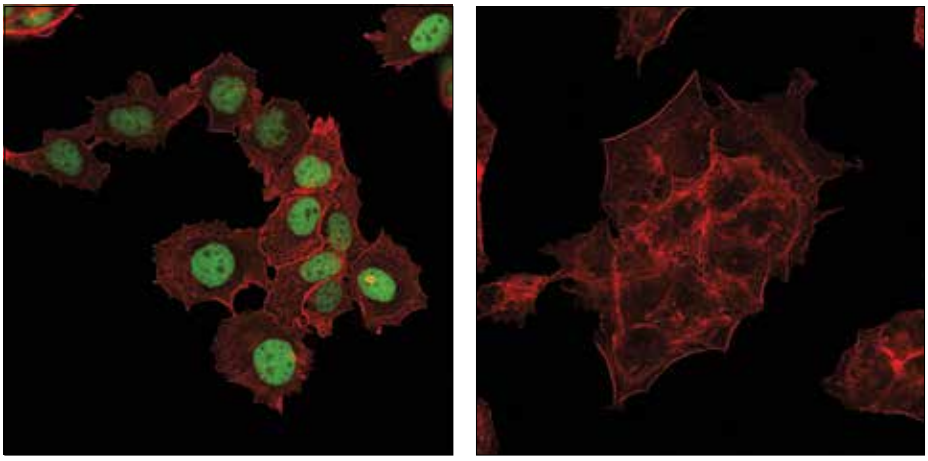
Applications: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide **Species Cross-Reactivity:** **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **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.



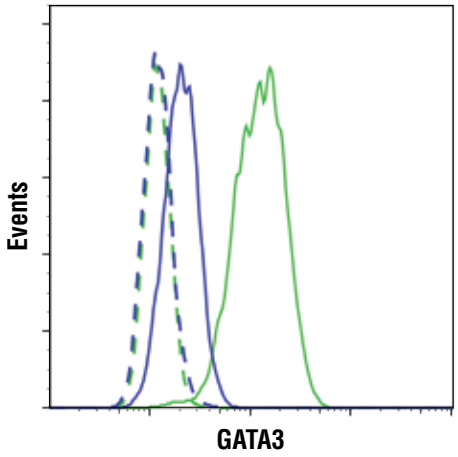
Immunohistochemical analysis of paraffin-embedded MCF7 cell pellet (left, positive) or HUVEC cell pellet (right, negative) using GATA-3 (E2N1Y) Mouse mAb.



Immunohistochemical analysis of paraffin-embedded human ductal breast carcinoma (left, positive) or colon carcinoma (right, negative) using GATA-3 (E2N1Y) Mouse mAb.



Confocal immunofluorescent analysis of MCF7 cells (left, positive) and Hep G2 cells (right, negative) using GATA-3 (E2N1Y) Rabbit mAb (green). Actin filaments were labeled with DyLight™ 554 Phalloidin #13054 (red).



◀ *Flow cytometric analysis of THP-1 cells (blue) and MCF7 cells (green) using GATA3 (E2N1Y) Mouse mAb (solid lines) or concentration-matched Mouse (G3A1) mAb IgG Isotype control #5415 (dashed lines). Anti-mouse IgG (H+L), F(ab')$_2$ Fragment (Alexa Fluor® 488 Conjugate) #4408 was used as a secondary antibody.*

Background References:

(1) Ko, L.J. and Engel, J.D. (1993) *Mol Cell Biol* 13, 4011-22.

(2) Merika, M. and Orkin, S.H. (1993) *Mol Cell Biol* 13, 3999-4010.

(3) Lowry, J.A. and Atchley, W.R. (2000) *J Mol Evol* 50, 103-15.

(4) Debacker, C. et al. (1999) *Mech Dev* 85, 183-7.

(5) Pandolfi, P.P. et al. (1995) *Nat Genet* 11, 40-4.

(6) Ho, I.C. et al. (2009) *Nat Rev Immunol* 9, 125-35.

(7) Amsen, D. et al. (2007) *Immunity* 27, 89-99.

(8) Grote, D. et al. (2008) *PLoS Genet* 4, e1000316.

(9) Kaufman, C.K. et al. (2003) *Genes Dev* 17, 2108-22.

(10) Kouros-Mehr, H. et al. (2006) *Cell* 127, 1041-55.

(11) Chou, J. et al. (2010) *J Cell Physiol* 222, 42-9.

(12) Van Esch, H. et al. (2000) *Nature* 406, 419-22.