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# GATA3 Antibody

Catalog # ASC11064

## Product Information

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| **Application** | WB, IF, E, IHC-P |
| **Primary Accession** | P23771 |
| **Other Accession** | NP_001002295, 50541959 |
| **Reactivity** | Human, Mouse, Rat |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |
| **Calculated MW** | 47916 |
| **Concentration (mg/ml)** | 1 mg/mL |
| **Conjugate** | Unconjugated |
| **Application Notes** | GATA3 antibody can be used for detection of GATA3 by Western blot at 1 - 2 g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 g/mL. For immunofluorescence start at 20 g/mL. |

## Additional Information

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| **Gene ID** | 2625 |
| **Other Names** | Trans-acting T-cell-specific transcription factor GATA-3, GATA-binding factor 3, GATA3 |
| **Target/Specificity** | GATA3; |
| **Reconstitution & Storage** | GATA3 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures. |
| **Precautions** | GATA3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | GATA3 |
| **Function** | Transcriptional activator which binds to the enhancer of the T-cell receptor alpha and delta genes. Binds to the consensus sequence 5'-AGATAG-3'. Required for the T-helper 2 (Th2) differentiation process following immune and inflammatory responses. Positively regulates ASB2 expression (By similarity). Coordinates macrophage transcriptional activation and UCP2-dependent metabolic reprogramming in response to IL33. Upon tissue injury, acts downstream of IL33 signaling to drive differentiation of inflammation-resolving alternatively activated macrophages. |

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| **Cellular Location** | Nucleus. |
| **Tissue Location** | T-cells and endothelial cells. |

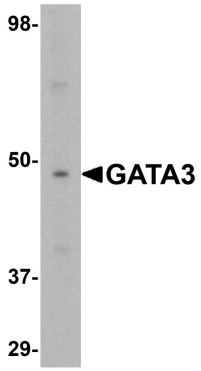
## Background

GATA3 Antibody: GATA3 is a zinc finger transcription factor that was first recognized as a possible determinant of T cell development. Later studies demonstrated that it is expressed in trophoblast giant cells and regulates trophoblast-specific genes during development. Specifically, GATA3 is selectively expressed in the trophectoderm of the peri-implantation embryo and regulates CDX2, which is required for the transcriptional repression of the POU5F1/Oct4 and NANOG genes and is thus essential for the segregation of the inner cell mass and trophectoderm at the blastocyst stage. Decreased or null-expression expression of GATA3 has also been suggested to play a major role in the development and progression of luminal breast cancer.

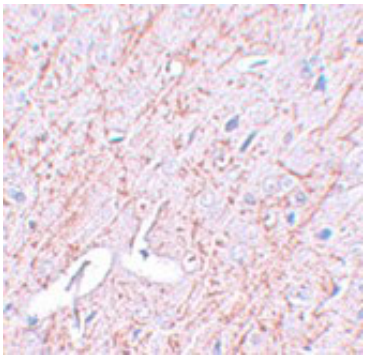
## References

Ko LJ, Yamamoto M, Leonard MW, et al. Murine and human T-lymphocyte GATA-3 factors mediate transcription through a cis-regulatory element within the human T-cell receptor delta gene enhancer. Mol. Cell. Biol. 1991; 11:2778-84.
Ma GT, Roth ME, Groskopf JC, et al. GATA-2 and GATA-3 regulate trophoblast-specific gene expression in vivo. Dev. 1997; 124:907-14.
Home P, Ray S, Dutta D, et al. GATA3 is selectively expressed in the trophectoderm of peri-implantation embryo and directly regulates Cdx2 gene expression. J. Biol. Chem. 2009; 284:28729-37.
Strumpf D, Mao CA, Yamanaka Y, et al. CDX2 is required for correct cell fate specification and differentiation of trophectoderm in the mouse blastocyst. Dev. 2005; 132:2093-102.

## Images

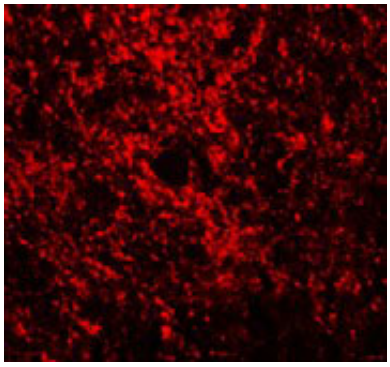



Western blot analysis of GATA3 in K562 cell lysate with GATA3 antibody at 1 µg/mL.



Immunohistochemistry of GATA3 in rat brain tissue with GATA3 antibody at 2.5 µg/mL.

Immunofluorescence of GATA3 in Rat Brain tissue with GATA3 antibody at 20 µg/mL.



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