

**GATA3 Antibody**  
Catalog # ASC11064**Specification**

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**GATA3 Antibody - Product Information**

Application	WB, IHC, IF
Primary Accession	<a href="#">P23771</a>
Other Accession	<a href="#">NP_001002295</a> , <a href="#">50541959</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	Predicted: 49 kDa

Application Notes	<b>Observed: 49 kDa KDa</b> <b>GATA3 antibody can be used for detection of GATA3 by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 20 µg/mL.</b>
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**GATA3 Antibody - Additional Information**

Gene ID	2625
<b>Target/Specificity</b>	
GATA3;	

**Reconstitution & Storage**

GATA3 antibody can be stored at 4°C for three months and -20°C, 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.

**GATA3 Antibody - Protein Information**

**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.

### Cellular Location

Nucleus.

### Tissue Location

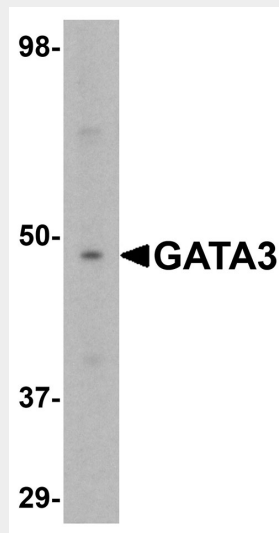
T-cells and endothelial cells.

### GATA3 Antibody - Protocols

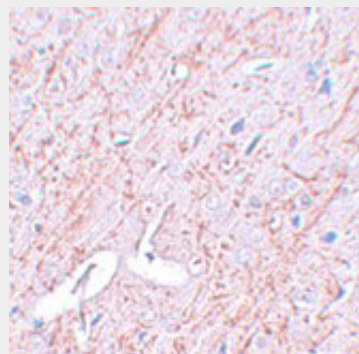
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

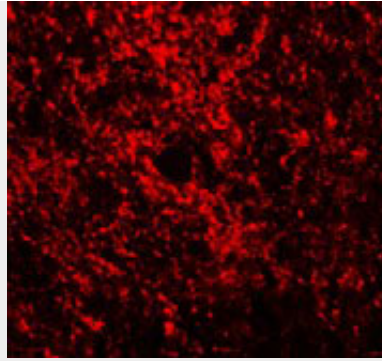
### GATA3 Antibody - Images



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  $\mu$ g/mL.

### **GATA3 Antibody - 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 trophoblast 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 trophoblast at the blastocyst stage. Decreased or null-expression of GATA3 has also been suggested to play a major role in the development and progression of luminal breast cancer.

### **GATA3 Antibody - 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 trophoblast 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 trophoblast in the mouse blastocyst. *Dev.* 2005; 132:2093-102.