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GATA3 Antibody

Catalog # ASC11064

Product Information

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

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

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.

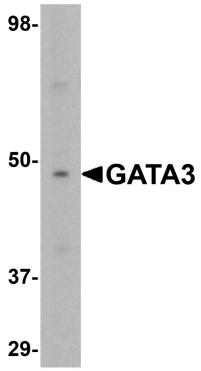
Background

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.

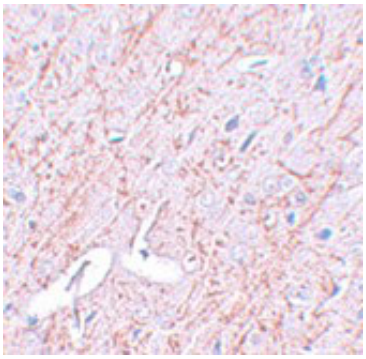
References

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

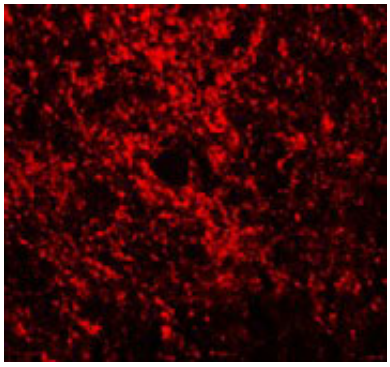


Western blot analysis of GATA3 in K562 cell lysate with GATA3 antibody at 1 µg/mL.



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.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.