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GATA3 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1156a

Product Information

Application	WB, E
Primary Accession	P23771
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	1A10D1
Isotype	IgG1
Calculated MW	47916
Description	GATA3: GATA binding protein 3. The genes for all 4 subunits of the T-cell antigen receptor (alpha, beta, gamma and delta) are controlled by distinct enhancers and their enhancer-binding proteins. Marine and Winoto (1991) identified a common TCR regulatory element by demonstrating binding of the enhancer-binding protein GATA3 to the enhancer elements of all 4 TCR genes. GATA3 had been shown in the chicken to be an enhancer-binding protein containing a zinc finger domain. GATA3 mRNA was demonstrated by Northern blot analysis in T cells but not in B cells, macrophages, or HeLa cell lines. GATA3 is abundantly expressed in the T-lymphocyte lineage and is thought to participate in T-cell receptor gene activation through binding to enhancers. Labastie et al. (1994) cloned the human gene and the 5-prime end of the mouse gene. The human gene comprises 6 exons distributed over 17 kb of DNA. Its 2 zinc fingers are encoded by 2 separate exons highly conserved with those of GATA1,but no other structural homologies between the 2 genes could be found.
Immunogen	Purified recombinant fragment of GATA3 (aa175-388) expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	2625
Other Names	Trans-acting T-cell-specific transcription factor GATA-3, GATA-binding factor 3, GATA3
Dilution	WB~~1/500 - 1/2000 E~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
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.

References

1. Cancer Res. 2005 Dec 15;65(24):11259-64. 2. J Histochem Cytochem. 2006 Feb;54(2):161-9. 3. Int Arch Allergy Immunol. 2006;139(4):306-16.

Images

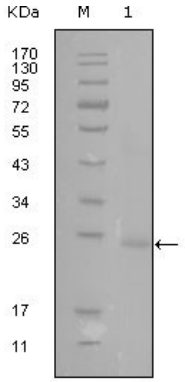

Figure 1: Western blot analysis using GATA3 mouse mAb against truncated GATA3-His recombinant protein (1).