10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

GATA6 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1797a

Product Information

Application	WB, FC, ICC, E
Primary Accession	Q92908
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	2F10G3
Isotype	IgG1
Calculated MW	60033
Description	This gene is a member of a small family of zinc finger transcription factors that play an important role in the regulation of cellular differentiation and organogenesis during vertebrate development. This gene is expressed during early embryogenesis and localizes to endo- and mesodermally derived cells during later embryogenesis and thereby plays an important role in gut, lung, and heart development. Mutations in this gene are associated with several congenital defects.
Immunogen	Purified recombinant fragment of human GATA6 (AA: 491-557) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	2627
Other Names	Transcription factor GATA-6, GATA-binding factor 6, GATA6
Dilution	WB~~1/500 - 1/2000 FC~~1/200 - 1/400 ICC~~N/A E~~1/10000
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	GATA6 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GATA6
Function	Transcriptional activator (PubMed: 19666519, PubMed:22750565,

PubMed:22824924, PubMed:27756709). Regulates SEMA3C and PLXNA2 (PubMed:19666519). Involved in gene regulation specifically in the gastric epithelium (PubMed:9315713). May regulate genes that protect epithelial cells from bacterial infection (PubMed:16968778). Involved in bone morphogenetic protein (BMP)-mediated cardiac-specific gene expression (By similarity). Binds to BMP response element (BMPRE) DNA sequences within cardiac activating regions (By similarity). In human skin, controls several physiological processes contributing to homeostasis of the upper pilosebaceous unit. Triggers ductal and sebaceous differentiation as well as limits cell proliferation and lipid production to prevent hyperseborrhoea. Mediates the effects of retinoic acid on sebocyte proliferation, differentiation and lipid production. Also contributes to immune regulation of sebocytes and antimicrobial responses by modulating the expression of anti- inflammatory genes such as IL10 and pro-inflammatory genes such as IL6, TLR2, TLR4, and IFNG. Activates TGFB1 signaling which controls the interfollicular epidermis fate (PubMed:33082341).

Cellular Location Nucleus

Tissue Location Expressed in heart, gut and gut-derived tissues. Expressed in skin upper pilosebaceous unit. Expression is decreased or lost in acne lesions (PubMed:33082341).

Background

The protein encoded by this gene is a member of the fibroblast growth factor (FGF) family. FGF family members possess broad mitogenic and cell survival activities and are involved in a variety of biological processes including embryonic development, cell growth, morphogenesis, tissue repair, tumor growth and invasion. This gene was identified by its oncogenic transforming activity. This gene and FGF3, another oncogenic growth factor, are located closely on chromosome 11. Co-amplification of both genes was found in various kinds of human tumors. Studies on the mouse homolog suggested a function in bone morphogenesis and limb development through the sonic hedgehog (SHH) signaling pathway.

References

1. BMC Cancer. 2012 Jun 6;12:218. 2. Neonatology. 2011;99(3):231-40.

Images

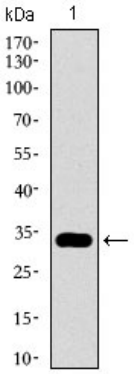
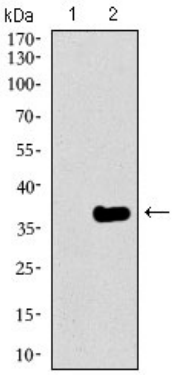


Figure 1: Western blot analysis using GATA6 mAb against human GATA6 recombinant protein. (Expected MW is 32.3 kDa)

Figure 2: Western blot analysis using GATA6 mAb against HEK293 (1) and GATA6 (AA: 491-557)-hIgGFc transfected HEK293 (2) cell lysate.



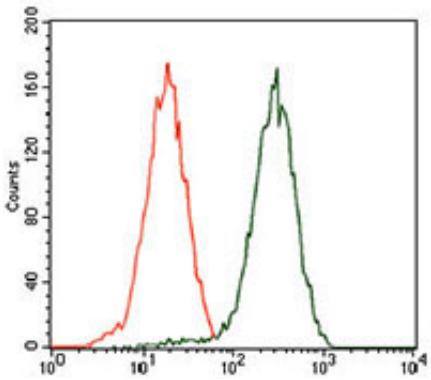


Figure 4: Flow cytometric analysis of HEK293 cells using GATA6 mouse mAb (green) and negative control (red).