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Phospho-GATA6(Y271) Antibody

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3766a

Product Information

Application	IF, DB, E
Primary Accession	Q92908
Other Accession	NP_005248.2
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB34697
Calculated MW	60033

Additional Information

Gene ID	2627
Other Names	GATA6; Transcription factor GATA-6; GATA-binding factor 6
Target/Specificity	This Phospho-GATA6-Y271 antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide surrounding Y271 of human GATA6, isoform 2.
Dilution	IF~~1:100 DB~~1:500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Phospho-GATA6(Y271) 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

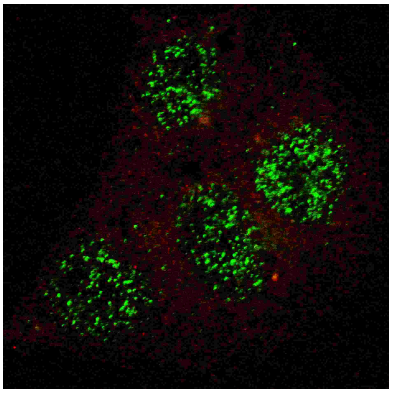
Thought to be important for regulating terminal differentiation and/or proliferation.

References

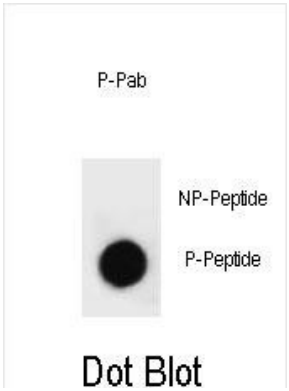
References for protein:
1.Artus, J., et al. Development 137(20):3361-3372(2010)
2.Lin, X., et al. J. Hum. Genet. 55(10):662-667(2010)
3.Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
4.Thye, T., et al. Nat. Genet. 42(9):739-741(2010)
5.Johnatty, S.E., et al. PLoS Genet. 6 (7), E1001016 (2010)
References for HepG2 cell line:
1. Knowles BB, et al. (1980). Human hepatocellular carcinoma cell lines secrete the major plasma proteins and hepatitis B surface antigen. Science 209: 497-499.[PubMed: 6248960].
2. Darlington GJ, et al. (1987). Growth and hepatospecific gene expression of human hepatoma cells in a defined medium. In Vitro Cell. Dev. Biol. 23: 349-354.[PubMed: 3034851].
3. Ihrke, G; Neufeld, EB; Meads, T; Shanks, MR; Cassio, D; Laurent, M; Schroer, TA; Pagano, RE et al. (1993). "WIF-B cells: an in vitro model for studies of hepatocyte polarity". Journal of Cell Biology 123 (6): 1761–1775. [PubMed:7506266].
4. Mersch-Sundermann, V.; Knasmüller, S.; Wu, X. J.; Darroudi, F.; Kassie, F. (2004). "Use of a human-derived liver cell line for the detection of cytoprotective, antigenotoxic and cogenotoxic agents". Toxicology 198 (1–3): 329–340. [PubMed:15138059].

Images

Fluorescent confocal image of HepG2 cells stained with phospho-GATA6-Y271 antibody. HepG2 cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.2%, 30 min). Cells were then incubated with AP3766a phospho-GATA6-Y271 primary antibody (1:100, 2 h at room temperature). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:1000, 1h). Nuclei were counterstained with Hoechst 33342 (blue) (10 µg/ml, 5 min). Note the highly specific localization of the phospho-GATA6



immunosignal mainly to the nucleus.



Dot blot analysis of Phospho-GATA6-pY271 Phospho-specific Pab (Cat. #AP3766a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.6ug per ml.

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