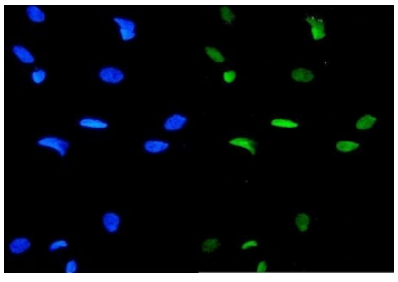
GATA3 Antibody / Multi-Application Research Antibody (RQ5683)

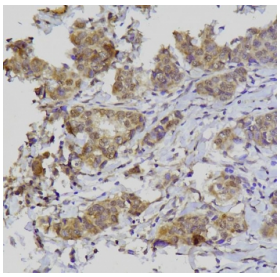
Catalog No.	Formulation	Size
RQ5683	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

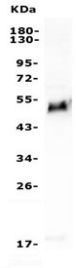
Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Purity	Affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	P23771
Localization	Nuclear
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry: 1-2ug/ml Immunofluorescence: 2-4ug/ml Flow cytometry: 1-3ug/million cells
Limitations	This GATA3 Antibody / Multi-Application Research Antibody is available for research use only.



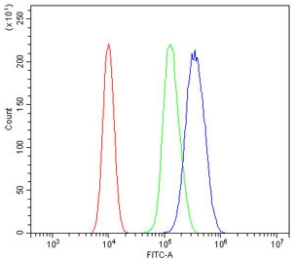
GATA3 Antibody HeLa IF. Immunofluorescence analysis of FFPE human HeLa cells stained with GATA3 Antibody / Multi-Application Research Antibody demonstrates prominent nuclear green fluorescence consistent with the localization of GATA binding protein 3 / GATA3 as a lineage-associated zinc finger transcription factor involved in epithelial differentiation and transcriptional regulation. DAPI nuclear counterstain is shown in blue. HIER: steam sections in pH 6 citrate buffer for 20 min.



GATA3 Antibody Breast Cancer IHC. Immunohistochemistry analysis of FFPE human breast cancer tissue stained with GATA3 Antibody / Multi-Application Research Antibody demonstrates moderate to strong predominantly nuclear HRP-DAB brown staining within malignant epithelial cell populations, consistent with the established role of GATA binding protein 3 / GATA3 in luminal epithelial differentiation and breast lineage-associated transcriptional regulation. Focal cytoplasmic background staining is also present within tumor-associated cellular regions. HIER: boil tissue sections in pH 8 EDTA for 20 min and allow to cool before testing.



GATA3 Antibody Jurkat WB. Western blot analysis of human Jurkat cell lysate using GATA3 Antibody / Multi-Application Research Antibody demonstrates a distinct band at approximately 50 kDa, consistent with the predicted molecular weight of GATA binding protein 3 / GATA3, a zinc finger transcription factor involved in T-cell lineage specification, epithelial differentiation, and transcriptional regulation.



GATA3 Antibody 293T FACS. Flow cytometry analysis of human 293T cells stained with GATA3 Antibody / Multi-Application Research Antibody demonstrates a clear rightward shift of the positive cell population relative to the isotype control, consistent with detection of GATA binding protein 3 / GATA3 expression in transfected epithelial-derived cells. Red=cells alone, Green=isotype control, Blue=GATA3 antibody. Cells were blocked with goat sera prior to staining.

Description

GATA3 antibody, also referred to as GATA binding protein 3 antibody and GATA3 immunofluorescence antibody in the literature, targets a zinc finger transcription factor involved in epithelial differentiation, T-cell lineage specification, and hormone-responsive transcriptional regulation. The GATA3 Antibody / Multi-Application Research Antibody is positioned for flexible detection of GATA3 expression across multiple assay formats including western blot, immunohistochemistry, immunofluorescence, immunocytochemistry, and flow cytometry.

GATA3 is encoded by the GATA3 gene located on chromosome 10p14 and belongs to the GATA family of transcription factors characterized by conserved zinc finger DNA-binding domains. The protein functions primarily within the nucleus, where it regulates lineage-specific transcriptional programs involved in immune differentiation, epithelial development, and tissue-specific cellular maturation. GATA3 is especially important for T-helper 2 cell differentiation and plays a critical role in mammary gland epithelial biology.

In epithelial tissues, GATA3 contributes to luminal differentiation pathways and maintenance of epithelial identity. High expression levels are frequently observed in breast epithelial cells, urothelial tissue, and subsets of endocrine-associated tissues. In cancer research, GATA3 is widely studied as a marker of luminal breast carcinoma differentiation and is commonly evaluated alongside hormone receptor-associated transcriptional networks. Altered GATA3 expression has been associated with tumor progression, epithelial plasticity, and changes in differentiation state across multiple tumor types.

Beyond pathology-focused applications, GATA3 remains an important target in immunology and developmental biology research. The transcription factor regulates cytokine-associated signaling pathways involved in adaptive immune responses and T-cell maturation. GATA3 expression is particularly relevant within helper T-cell lineage populations, where it coordinates transcriptional programs associated with immune polarization and cytokine production. These functions have expanded the utility of GATA3 antibodies into studies involving immune regulation, inflammation,

developmental signaling, and lineage commitment.

The rabbit polyclonal format of this GATA3 antibody supports broad epitope recognition, which may enhance target detection across denatured and native assay conditions. Multi-application compatibility enables use in western blot analysis, immunofluorescence imaging, immunocytochemistry staining, flow cytometry workflows, and tissue-based expression studies. Western blot analysis commonly demonstrates bands near the expected molecular weight range of GATA3, while immunofluorescence and immunohistochemical applications typically reveal predominantly nuclear localization patterns consistent with the biologic role of GATA3 as a transcriptional regulator.

GATA3 continues to serve as an important biologic marker linking epithelial differentiation, hormone-associated transcriptional regulation, and immune lineage specification. Ongoing research involving breast cancer biology, urothelial differentiation, adaptive immunity, and developmental signaling pathways maintains strong demand for versatile GATA3 antibodies compatible with multiple experimental approaches.

For highly selective detection of GATA3 in breast lineage-associated and epithelial differentiation studies, see the GATA3 Antibody / Breast Lineage Marker Antibody clone GATA3/2444 featuring protein microarray specificity validation.

Application Notes

Optimal dilution of the GATA3 Antibody / Multi-Application Research Antibody should be determined by the researcher.

Immunogen

Amino acids HSYMDAAQYPLPEEVDVLFNID from the human protein were used as the immunogen for the GATA3 antibody.

Storage

After reconstitution, the GATA3 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

GATA3 antibody, GATA binding protein 3 antibody, GATA3 western blot antibody, GATA3 flow cytometry antibody, GATA3 immunofluorescence antibody

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