

Rabbit GATA4 Polyclonal Antibody | anti-GATA4 antibody

Phospho-GATA4 (Ser262) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA31053	Rabbit	Human, Mouse, Rat	Western Blot, Immunohistochemistry, Immunofluorescence, Immunocytochemistry, ELISA

PRODUCT SYNONYMS

GATA4; Polyclonal Antibody; Phospho-GATA4 (Ser262) Antibody; ASD2; GATA 4; GATA binding protein 4; GATA-binding factor 4; gata4; GATA4_HUMAN; MGC126629; Transcription factor GATA 4; Transcription factor GATA-4; Transcription factor GATA4; VSD1; anti-GATA4 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-GATA4 (Ser262) antibody detects endogenous levels of GATA4 only when phosphorylated at Serine 262
Purity/Purification	From purified rabbit serum by affinity purification via sequential chromatography on phospho-and non-phospho-peptide affinity columns.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	443
Applicable Applications for anti-GATA4 antibody	WB (Western Blot), IHC (Immunohistochemistry), IF (Immunofluorescence), ICC (Immunocytochemistry), ELISA
Application Notes	WB: 1:500-1:2000 IF/ICC: 1:100-1:500 IHC: 1:50-1:500
Immunogen	A synthesized peptide derived from human GATA4 around the phosphorylation site of Serine 262
Subcellular Location	Nucleus.
Predicted Cross Reactivity	Pig, Zebrafish, Bovine, Horse, Sheep, Rabbit, Dog, Chicken, Xenopus
Similarity	Pig (100%), Zebrafish (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (100%)
Conjugation	Unconjugated
Epitope	Phospho Ser262
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IF (Immunofluorescence)

AAA31053 staining 293 by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



WB (Western Blot (WB))

Western blot analysis of GATA4 phosphorylation expression in 293 whole cell lysates, The lane on the left is treated with the antigen-specific peptide.



WB (Western Blot)

Western blot analysis of Phospho-GATA4 (Ser262) expression in various lysates



IF (Immunofluorescence)

AAA31053 staining HUVEC cells by ICC/IF. Cells were fixed with PFA and permeabilized in 0.1% saponin prior to blocking in 10% serum for 45 minutes at 37 degree C. The primary antibody was diluted 1/400 and incubated with the sample for 1 hour at 37 degree C. A Alexa Fluor 594 conjugated goat polyclonal to rabbit IgG (H+L), diluted 1/600 was used as secondary antibody.



IHC (Immunohistochemistry)

AAA31053 at 1/200 staining Rat lung tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



IHC (Immunohistochemistry)

AAA31053 at 1/200 staining Rat lung tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

ADDITIONAL INFORMATION

Related Product Information for anti-GATA4 antibody

Description: This gene encodes a member of the GATA family of zinc-finger transcription factors. Members of this family recognize the GATA motif which is present in the promoters of many genes.

Function: Transcriptional activator that binds to the consensus sequence 5'-AGATAG-3' and plays a key role in cardiac development and function (PubMed:24000169, PubMed:27984724). In cooperation with TBX5, it binds to cardiac super-enhancers and promotes cardiomyocyte gene expression, while it downregulates endocardial and endothelial gene expression (PubMed:27984724). Involved in bone morphogenetic protein (BMP)-mediated induction of cardiac-specific gene expression. Binds to BMP response element (BMPRE) DNA sequences within cardiac activating regions (By similarity). Acts as a transcriptional activator of ANF in cooperation with NKX2-5 (By similarity). Promotes cardiac myocyte enlargement (PubMed:20081228). Required during testicular development (PubMed:21220346). May play a role in sphingolipid signaling by regulating the expression of sphingosine-1-phosphate degrading enzyme, sphingosine-1-phosphate lyase (PubMed:15734735).

Subunit Structure: Interacts with ZNF260 (By similarity). Interacts with the homeobox domain of NKX2-5 through its C-terminal zinc finger. Also interacts with JARID2 which represses its ability to activate transcription of ANF. Interacts with NFATC4 and LMCD1 (By similarity). Forms a complex made of CDK9, CCNT1/cyclin-T1, EP300 and GATA4 that stimulates hypertrophy in cardiomyocytes. Interacts with NR5A1, ZFPM2 and TBX5. Interacts with TBX18.

Post-translational Modifications: Methylation at Lys-300 attenuates transcriptional activity.

NCBI AND UNIPROT INFORMATION

NCBI GI #	815890849
NCBI GeneID	2626
NCBI Accession #	NP_001295022.1
NCBI GenBank Nucleotide #	NM_001308093.1

UniProt Accession #	P43694; Q3MJ45; Q5IFM8; B7ZKX0; B7ZKZ4
Molecular Weight	Observed: 48 kDa Predicted: 45 kDa
NCBI Official Full Name	transcription factor GATA-4 isoform 1
NCBI Official Synonym Full Names	GATA binding protein 4
NCBI Official Symbol	GATA4
NCBI Official Synonym Symbols	TOF; ASD2; VSD1; TACHD
NCBI Protein Information	transcription factor GATA-4
UniProt Protein Name	Transcription factor GATA-4
UniProt Gene Name	GATA4

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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