

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human GATA-5 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human (rh) GATA-1, rhGATA-2, rhGATA-3, rhGATA-4, and rhGATA-6 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human GATA-5 Met1-Ala397 Accession # Q9BWX5
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

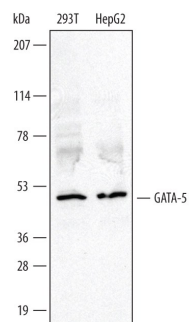
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Chromatin Immunoprecipitation (ChIP)	5 µg/5 x 10 ⁶ cells	See Below
Immunocytochemistry	5-15 µg/mL	See Below

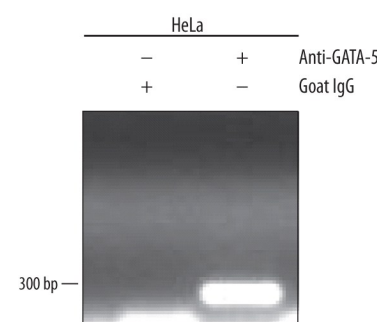
DATA

Western Blot



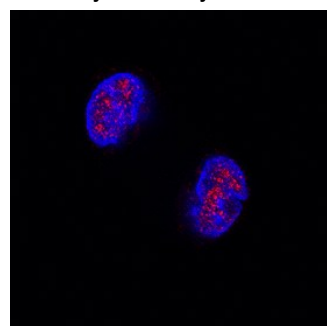
Detection of Human GATA-5 by Western Blot. Western blot shows lysates of HEK293 human embryonic kidney cell line and HepG2 human hepatocellular carcinoma cell line. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human GATA-5 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2170) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for GATA-5 at approximately 50 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Chromatin Immunoprecipitation (ChIP)



Detection of GATA-5-regulated Genes by Chromatin Immunoprecipitation. HeLa human cervical epithelial carcinoma cell line was fixed using formaldehyde, resuspended in lysis buffer, and sonicated to shear chromatin. GATA-5/DNA complexes were immunoprecipitated using 5 µg Goat Anti-Human GATA-5 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2170) or control antibody (Catalog # AB-108-C) for 15 minutes in an ultrasonic bath, followed by Biotinylated Anti-Goat IgG Secondary Antibody (Catalog # BAF109). Immunocomplexes were captured using 50 µL of MagCelect Streptavidin Ferrofluid (Catalog # MAG999) and DNA was purified using chelating resin solution. The *mucin4* promoter was detected by standard PCR.

Immunocytochemistry



GATA-5 in HepG2 Human Cell Line. GATA-5 was detected in immersion fixed HepG2 human hepatocellular carcinoma cell line using Goat Anti-Human GATA-5 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2170) at 1.7 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to nuclei. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none">● 12 months from date of receipt, -20 to -70 °C as supplied.● 1 month, 2 to 8 °C under sterile conditions after reconstitution.● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

GATA-5 belongs to the GATA family of transcription factors which bind to the consensus DNA sequence (AIT) GATA (AIG) to control diverse tissue-specific programs of gene expression and morphogenesis. GATA5 is important in the development and differentiation of endoderm-derived organs, including heart and gastrointestinal tissues. GATA-5 has also been implicated in cancer development (1, 2).

References:

1. Tsai, S.F. *et al.* (1989) *Nature* **339**:446.
2. Jiang, Y. and T. Evans (1996) *Dev. Biol.* **174**:258.