

**DESCRIPTION**

<b>Species Reactivity</b>	Human
<b>Specificity</b>	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.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human GATA-5 Met1-Ala397 Accession # Q9BWX5
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

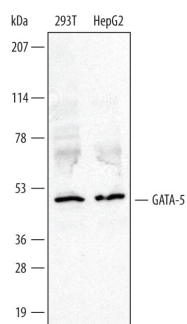
**APPLICATIONS**

**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.

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

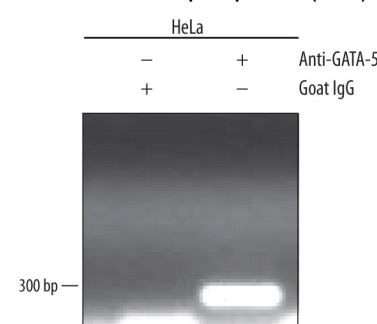
**DATA**

**Western Blot**



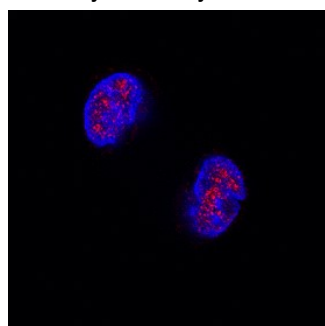
**Detection of Human GATA-5 by Western Blot.** Western blot shows lysates of HEK293 human embryonic kidney cell line and HepG2 human hepatocellular carcinoma cell line. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human GATA-5 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2170) followed 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

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"><li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li><li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li><li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li></ul>

## 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.