

DESCRIPTION

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|---------------------------|---|
| Species Reactivity | Human |
| Specificity | Detects human GATA-4 in direct ELISAs and Western blots. |
| Source | Polyclonal Goat IgG |
| Purification | Antigen Affinity-purified |
| Immunogen | <i>E. coli</i> -derived recombinant human GATA-4 Met27-Phe211 Accession # P43694 |
| 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. |

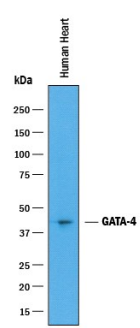
APPLICATIONS

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 |

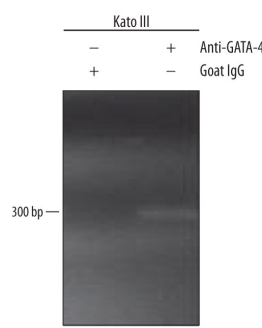
DATA

Western Blot



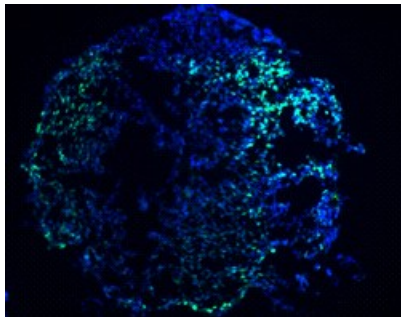
Detection of Human GATA-4 by Western Blot. Western blot shows lysates of human heart tissue. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human GATA-4 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2606) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for GATA-4 at approximately 46 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Chromatin Immunoprecipitation (ChIP)



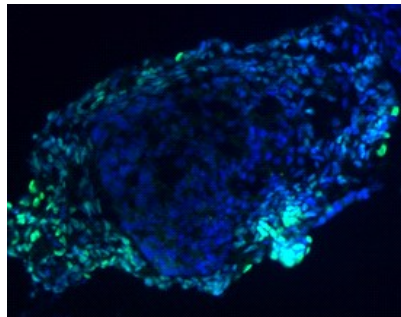
Detection of GATA-4-regulated Genes by Chromatin Immunoprecipitation. KATO-III human gastric carcinoma cell line was fixed using formaldehyde, resuspended in lysis buffer, and sonicated to shear chromatin. GATA-4/DNA complexes were immunoprecipitated using 5 µg Goat Anti-Human GATA-4 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2606) 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 MagCollect Streptavidin Ferrofluid (Catalog # MAG999) and DNA was purified using chelating resin solution. The *mucin4* promoter was detected by standard PCR.

Immunocytochemistry



GATA-4 in Differentiated Human Embryonic Stem Cells. GATA-4 was detected in immersion fixed differentiated human embryonic stem cells using 10 µg/mL Goat Anti-Human GATA-4 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2606) for 3 hours at room temperature. Cells were stained (green) and counterstained with DAPI (blue). View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

Immunocytochemistry



GATA-4 in Differentiated Human Embryonic Stem Cells. GATA-4 was detected in immersion fixed differentiated human embryonic stem cells using 10 µg/mL Goat Anti-Human GATA-4 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2606) for 3 hours at room temperature. Cells were stained (green) and counterstained with DAPI (blue). 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-4 belongs to the GATA family of transcription factors, which bind to the consensus DNA sequence (A/T) GATA (A/G) to control diverse tissue-specific programs of gene expression and morphogenesis. It is widely expressed in mesodermal- and endodermal-derived tissues. GATA-4 interacts with other transcription factors such as NKX2.5, and myocyte enhancer factor 2 to regulate cardiac myocyte-specific gene expression. Human GATA-4 share 93%, 93% and 92% amino acid sequence identity with porcine, rat and mouse GATA-4, respectively.