

## DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse KLF4 in direct ELISAs and Western blots.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant mouse KLF4 Ala11-Phe483 Accession # Q60793
<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.

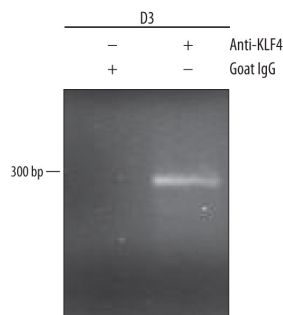
## APPLICATIONS

**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>	0.1 µg/mL	Recombinant Mouse KLF4
<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
<b>Immunohistochemistry</b>	1-25 µg/mL	See Below

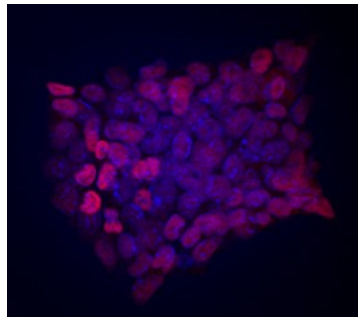
## DATA

### Chromatin Immunoprecipitation (ChIP)



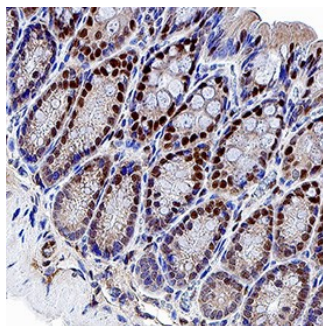
**Detection of KLF4-regulated Genes by Chromatin Immunoprecipitation.** D3 mouse embryonic stem cell line was fixed using formaldehyde, resuspended in lysis buffer, and sonicated to shear chromatin. KLF4/DNA complexes were immunoprecipitated using 5 µg Goat Anti-Mouse KLF4 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3158) 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 *B2R* promoter was detected by standard PCR.

### Immunocytochemistry



**KLF4 in D3 Mouse Cell Line.** KLF4 was detected in immersion fixed D3 mouse embryonic stem cell line using Mouse KLF4 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3158) at 10 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). View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

### Immunohistochemistry



**KLF4 in Mouse Colon Tissue.** KLF4 was detected in perfusion fixed frozen sections of mouse colon tissue using Goat Anti-Mouse KLF4 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3158) at 1 µg/mL overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # [CTS013](#)). Tissue was stained using the Anti-Goat IgG VisUCyte™ HRP Polymer Antibody (brown; Catalog # [VC004](#)) and counterstained with hematoxylin (blue). Specific staining was localized to cell nuclei. View our protocol for [IHC Staining with VisUCyte HRP Polymer Detection Reagents](#).

## 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

KLF4 belongs to the KLF family of transcription factors that regulate several cell functions. It is highly expressed in differentiated epithelial cells of the gastrointestinal tract. Human and mouse KLF4 share 91% amino acid sequence homology.