

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human and mouse KLF5 in Western blots. In direct ELISAs and Western blots, less than 5% cross-reactivity with recombinant human (rh) KLF4, rhKLF6, recombinant mouse (rm) KLF4 and rmKLF15 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human KLF5 Leu85-Ala177 Accession # Q13887
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 either lyophilized or as a 0.2 µm filtered solution in PBS.

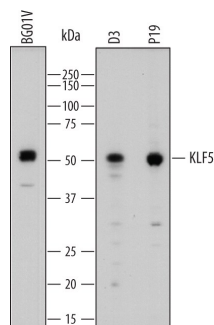
APPLICATIONS

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.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunocytochemistry	5-15 µg/mL	See Below
Simple Western	10 µg/mL	See Below
Knockout Validated	KLF5 is specifically detected in HeLa human cervical epithelial carcinoma parental cell line but is not detectable in KLF5 knockout HeLa cell line.	

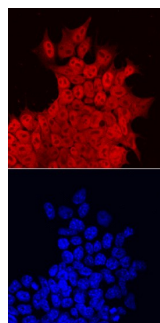
DATA

Western Blot



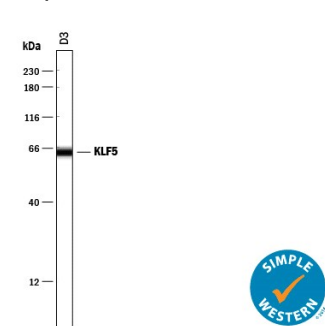
Detection of Human and Mouse KLF5 by Western Blot. Western blot shows lysates of BG01V human embryonic stem cells, D3 mouse embryonic stem cell line, and P19 mouse embryonic carcinoma cell line. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human KLF5 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3758) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). A specific band was detected for KLF5 at approximately 50-55 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 1](#).

Immunocytochemistry



KLF5 in D3 Mouse Stem Cells. KLF5 was detected in immersion fixed D3 mouse embryonic stem cell line using Goat Anti-Human KLF5 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3758) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red, upper panel; Catalog # NL001) and counterstained with DAPI (blue, lower panel). Specific staining was localized to nuclei and cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

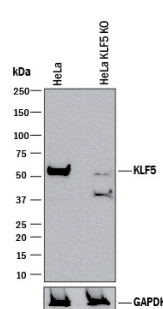
Simple Western



Detection of Mouse KLF5 by Simple Western™. Simple Western lane view shows lysates of D3 mouse embryonic stem cell line, loaded at 0.2 mg/mL. A specific band was detected for KLF5 at approximately 64 kDa (as indicated) using 10 µg/mL of Goat Anti-Human/Mouse KLF5 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3758) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



Knockout Validated



Western Blot Shows Human KLF5 Specificity by Using Knockout Cell Line. Western blot shows lysates of HeLa human cervical epithelial carcinoma parental cell line and KLF5 knockout HeLa cell line (KO). PVDF membrane was probed with 1 µg/mL of Goat Anti-Human/Mouse KLF5 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3758) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for KLF5 at approximately 53 kDa (as indicated) in the parental HeLa cell line, but is not detectable in knockout HeLa cell line. GAPDH (Catalog # AF5718) is shown as a loading control. This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 1](#).

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	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <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

Human KLF5, also known as basic transcription element binding protein 2 (BTEB2), is a widely expressed 51 kDa (457 aa) member of the kruppel C2H2-type zinc finger protein family. KLF5 contains three C2H2-type zinc fingers at the carboxyl-terminus that preferentially bind to cis-DNA elements that are GC rich. It is a transcription activator that promotes cell proliferation and oncogenesis. Over the region used as immunogen, human, mouse and canine KLF5 share 95% aa sequence identity.