Human p16INK4a / CDKN2A Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF5779

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human p16INK4a/CDKN2A in Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human p16INK4a/CDKN2A Glu2-Asp156 Accession # P42771
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.

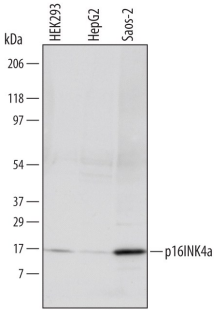
APPLICATIONS

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
Immunocytochemistry	0.3-15 µg/mL	See Below
Simple Western	10 µg/mL	See Below

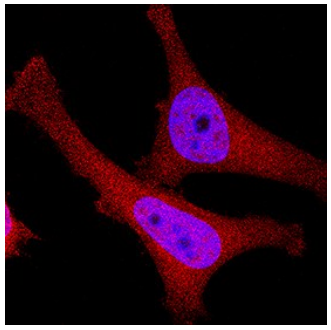
DATA

Western Blot



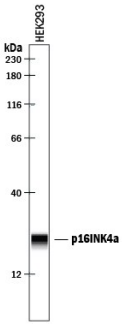
Detection of Human p16INK4a/CDKN2A by Western Blot. Western blot shows lysates of HEK293 human embryonic kidney cell line, HepG2 human hepatocellular carcinoma cell line, and Saos-2 human osteosarcoma cell line. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human p16INK4a/CDKN2A Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5779) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). A specific band was detected for p16INK4a/CDKN2A at approximately 16 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



p16INK4a / CDKN2A in HeLa Human Cell Line. p16INK4a / CDKN2A was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line using Goat Anti-Human p16INK4a / CDKN2A Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5779) at 0.3 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 cytoplasm and nuclei. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

Simple Western



Detection of Human p16INK4a / CDKN2A by Simple Western™. Simple Western lane view shows lysates of HEK293 human embryonic kidney cell line, loaded at 0.2 mg/mL. A specific band was detected for p16INK4a / CDKN2A at approximately 24 kDa (as indicated) using 10 µg/mL of Goat Anti-Human p16INK4a / CDKN2A Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5779) 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.

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.** ● 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.

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BACKGROUND

p16INK4a (16 kDa Inhibitor of CDK4-a; also MTS1, CDK41 and CDKN2) is a 16 kDa member of the CDKN2 cyclin-dependent kinase inhibitor family of molecules. It is widely expressed (although not in skeletal muscle) and serves as a negative regulator of cell proliferation. It does so by associating with CDK4 or 6, thereby blocking cyclin binding and subsequent Ser/Thr kinase activity. Human p16INK4a is 156 amino acids (aa) in length. It contains four “L” shaped ankyrin repeats (aa 11-139) that interact with cyclin. There are at least two splice variants for p16INK4a. One is termed p12 and shows a 65 aa substitution for aa 52-156; the other simply shows an alternate start site at Met52. Full-length human p16INK4a shares 63% aa identity with mouse p16INK4a.

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