Human Lysine (K)-specific Demethylase 4C/KDM4C Antibody

Antigen Affinity-purified Polyclonal Sheep IgG

Catalog Number: AF6430

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human KDM4C in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human KDM4A is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human KDM4C Lys381-Lys588 Accession # Q9H3R0
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.

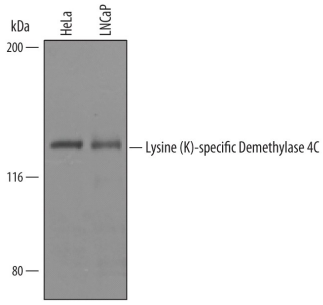
APPLICATIONS

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

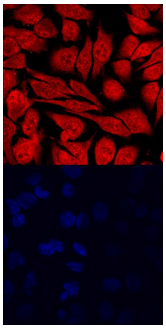
DATA

Western Blot



Detection of Human Lysine (K)-specific Demethylase 4C/KDM4C by Western Blot. Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line and LNCaP human prostate cancer cell line. PVDF Membrane was probed with 1 µg/mL of Human Lysine (K)-specific Demethylase 4C/KDM4C Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6430) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Lysine (K)-specific Demethylase 4C/KDM4C at approximately 120 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

Immunocytochemistry



KDM4C in HeLa Human Cell Line. KDM4C was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line using Human KDM4C Affinity-purified Polyclonal Antibody (Catalog # AF6430) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red, upper panel; Catalog # NL010) 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.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
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.

BACKGROUND

KDM4C (Lysine [K]-specific demethylase 4C; also GASC1 and JMJD2C) is a 120-140 kDa member of the JHDM3 histone demethylase family of enzymes. It is ubiquitously expressed, and specifically demethylates trimethylated lysines on histone H3 (on Lys9 and Lys36), as well as multiple non-histone methylated proteins such as WIZ, CDYL1 and G9a. Transcriptional activation occurs when it interacts with the androgen and progesterone receptors. Human KDM4C is 1056 amino acids (aa) in length. It contains one jumonji N domain (aa 16-58), a catalytic jumonji C domain (aa 144-310), two PHD zinc finger regions (aa 689-865), and two TUDOR methylated-histone binding domains (aa 877-991). Three potential splice variants are reported. One demonstrates an alternative start site 23 aa upstream of the standard site, a second shows a 49 aa substitution for aa 999-1056, and a third contains a five aa substitution for aa 809-1056. Over aa 381-588, human KDM4C shares 51% aa identity with mouse KDM4C.

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