

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human KDM5B in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human KDM5B Leu819-Arg918 Accession # Q9UGL1
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	5-15 µg/mL	See Below

DATA

<p>Western Blot</p>	<p>Detection of Human Lysine (K)-specific Demethylase 5B/KDM5B by Western Blot. Western blot shows lysates of 293T human embryonic kidney cell line. PVDF Membrane was probed with 1 µg/mL of Human Lysine (K)-specific Demethylase 5B/KDM5B Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6477) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Lysine (K)-specific Demethylase 5B/KDM5B at approximately 170 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p>Immunocytochemistry</p>	<p>Lysine (K)-specific Demethylase 5B/KDM5B in BT-20 Human Cell Line. Lysine (K)-specific Demethylase 5B/KDM5B was detected in immersion fixed BT-20 human breast cancer cell line using Human Lysine (K)-specific Demethylase 5B/KDM5B Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6477) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red, upper panel; Catalog # NL007) and counterstained with DAPI (blue, lower panel). Specific staining was localized to nuclei. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.</p>
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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. <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

KDM5B (also JARID1B, RBP2-H1 and PLU-1) is a 170-200 kDa member of the JARID1 histone demethylase family of proteins. It is a transcriptional repressor that is highly expressed in Sertoli cells and mammary epithelium during pregnancy, and interacts with BF-1 and PAX9. KDM5B is reported to demethylate tri- and di-methylated Lys4 on histone H3. It has no activity on Lys9 or 27. Human KDM5B is 1544 amino acids (aa) in length. It contains a jumonji N domain (aa 32-73), an ARID DNA binding region (aa 97-187), a PHD domain (aa 309-359), a jumonji C domain (aa 486-602), one C5HC2 motif (aa 692-745), and two consecutive PHD domains (aa 1176-1538). There are three utilized phosphorylation sites at Ser1383, 1384 and 1405. There are three potential splice variants. Two show a premature truncation after Pro1433 coupled to an alternative start site at either Met396 or Met159. A third contains a 36 aa insertion after Glu237. Over aa 819-918, human KDM5B shares 96% aa identity with mouse KDM5B.