Product Datasheet

Lysine (K)-specific Demethylase 3A/KDM3A/JMJD1A Antibody
NBP1-49601SS

Unit Size: 0.025 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

Publications: 1

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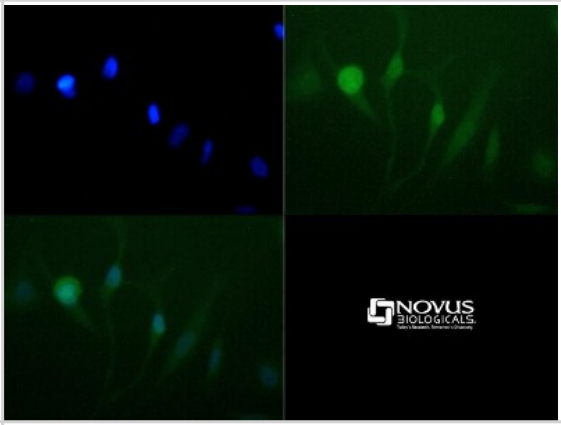
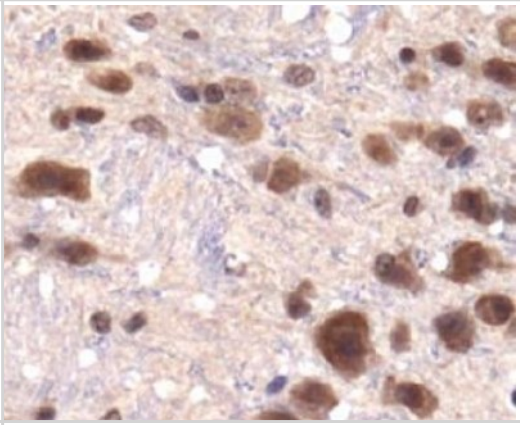
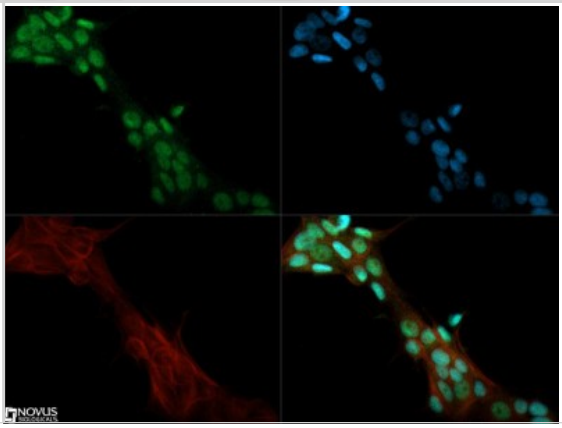
Lysine (K)-specific Demethylase 3A/KDM3A/JMJD1A Antibody

Product Information	
Unit Size	0.025 ml
Concentration	0.53 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.05% Sodium Azide
Purity	Immunogen affinity purified
Buffer	PBS, 30% glycerol

Product Description	
Host	Rabbit
Gene ID	55818
Gene Symbol	KDM3A
Species	Human, Mouse, Primate
Species Reactivity	Human, mouse and primate. Immunogen sequence has 91% homology with rat.
Immunogen	A genomic peptide made to an internal region of the human JMJD1A protein (within residues 250-400). [Swiss-Prot Q9Y4C1]
Notes	Manufactured by Genomic Antibody Technology™. GAT FAQs

Product Application Details	
Applications	Western Blot, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin
Recommended Dilutions	Immunocytochemistry/Immunofluorescence 1:500-1:2000, Immunohistochemistry 1:50, Immunohistochemistry-Paraffin 1:50, Western Blot 1:5000
Application Notes	This JMJD1A antibody is useful for immunohistochemistry on paraffin tissues, immunocytochemistry/immunofluorescence and Western blot where a band is seen ~147 kDa. In ICC/IF, nuclear signal was observed in MCF-7 cells. Prior to immunostaining paraffin tissues, antigen retrieval with sodium citrate buffer (pH 6.0) is recommended.

Images

Western Blot: JMJD1A Antibody [NBP1-49601] - Western blot analysis of JMJD1A in Cos7 CoCl2 treated lysate.	
Immunocytochemistry/Immunofluorescence: JMJD1A Antibody [NBP1-49601] - Antibody was tested at 1:50 in HeLa cells with FITC (green). Nuclei (Blue) were counterstained with DAPI (blue).	
Immunohistochemistry-Paraffin: JMJD1A Antibody [NBP1-49601] - Immunohistochemical staining of JMJD1A in paraffin embedded mouse brain.	
Immunocytochemistry/Immunofluorescence: JMJD1A Antibody [NBP1-49601] - JMJD1A antibody was tested in MCF-7 cells with Dylight 488 (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and Dylight 550 (red).	

Publications

Kuroki S, Matoba S, Akiyoshi M et al. Epigenetic Regulation of Mouse Sex Determination by the Histone Demethylase Jmjd1a. Science. 2013 Sep 6 [PMID: 24009392]

Procedures

Western Blot protocol for JMJD1A Antibody (NBP1-49601)
Western Blot Protocol

1. Perform SDS-PAGE on samples to be analyzed, loading 40 ug of total protein per lane.
2. Transfer proteins to membrane according to the instructions provided by the manufacturer of the membrane and transfer apparatus.
3. Stain according to standard Ponceau S procedure (or similar product) to assess transfer success, and mark molecular weight standards where appropriate.
4. Rinse the blot.
5. Block the membrane using standard blocking buffer for at least 1 hour.
6. Wash the membrane in wash buffer three times for 10 minutes each.
7. Dilute the rabbit anti-JMJD1A primary antibody (NBP1-49601) in blocking buffer and incubate 1 hour at room temperature.
8. Wash the membrane in wash buffer three times for 10 minutes each.
9. Apply diluted rabbit-IgG HRP-conjugated secondary antibody in blocking buffer (as per manufacturers instructions) and incubate 1 hour at room temperature.
10. Wash the blot in wash buffer three times for 10 minutes each (this step can be repeated as required to reduce background).
11. Apply the detection reagent of choice in accordance with the manufacturers instructions.

*Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%.

Immunohistochemistry-Paraffin protocol for JMJD1A Antibody (NBP1-49601)
Immunohistochemistry-Paraffin Embedded Sections

Antigen Unmasking:
Bring slides to a boil in 10 mM sodium citrate buffer (pH 6.0) then maintain at a sub-boiling temperature for 10 minutes. Cool slides on bench-top for 30 minutes.

Staining:
1. Wash sections in deionized water three times for 5 minutes each.
2. Wash sections in wash buffer for 5 minutes.
3. Block each section with 100-400 ul blocking solution for 1 hour at room temperature.
4. Remove blocking solution and add 100-400 ul diluted primary antibody. Incubate overnight at 4C.
5. Remove antibody solution and wash sections in wash buffer three times for 5 minutes each.
6. Add 100-400 ul biotinylated diluted secondary antibody. Incubate 30 minutes at room temperature.
7. Remove secondary antibody solution and wash sections three times with wash buffer for 5 minutes each.
8. Add 100-400 ul Streptavidin-HRP reagent to each section and incubate for 30 minutes at room temperature.
9. Wash sections three times in wash buffer for 5 minutes each.
10. Add 100-400 ul DAB substrate to each section and monitor staining closely.
11. As soon as the sections develop, immerse slides in deionized water.
12. Counterstain sections in hematoxylin.
13. Wash sections in deionized water two times for 5 minutes each.
14. Dehydrate sections.
15. Mount coverslips.

Immunocytochemistry/Immunofluorescence Protocol for JMJD1A Antibody (NBP1-49601)
Immunocytochemistry Protocol

Culture cells to appropriate density in 35 mm culture dishes or 6-well plates.

1. Remove culture medium and add 10% formalin to the dish. Fix at room temperature for 30 minutes.
2. Remove the formalin and add ice cold methanol. Incubate for 5-10 minutes.
3. Remove methanol and add washing solution (i.e. PBS). Be sure to not let the specimen dry out. Wash three times for 10 minutes.
4. To block nonspecific antibody binding incubate in 10% normal goat serum from 1 hour to overnight at room temperature.
5. Add primary antibody at appropriate dilution and incubate at room temperature from 2 hours to overnight at room temperature.
6. Remove primary antibody and replace with washing solution. Wash three times for 10 minutes.
7. Add secondary antibody at appropriate dilution. Incubate for 1 hour at room temperature.
8. Remove antibody and replace with wash solution, then wash for 10 minutes. Add Hoechst 33258 to wash solution at 1:25,0000 and incubate for 10 minutes. Wash a third time for 10 minutes.
9. Cells can be viewed directly after washing. The plates can also be stored in PBS containing Azide covered in Parafilm (TM). Cells can also be cover-slipped using Fluoromount, with appropriate sealing.

*The above information is only intended as a guide. The researcher should determine what protocol best meets their needs. Please follow safe laboratory procedures.

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Limitations
This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

For more information on our guarantee, please visit www.novusbio.com/guarantee.