Product datasheet

**Anti-KDM5C / Jarid1C / SMCX antibody - N-terminal**

<table>
<thead>
<tr>
<th>Overview</th>
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<tbody>
<tr>
<td><strong>Product name</strong></td>
<td>Anti-KDM5C / Jarid1C / SMCX antibody - N-terminal</td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td>Rabbit polyclonal to KDM5C / Jarid1C / SMCX - N-terminal</td>
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<td><strong>Host species</strong></td>
<td>Rabbit</td>
</tr>
<tr>
<td><strong>Tested applications</strong></td>
<td>Suitable for: IP, ICC/IF, WB</td>
</tr>
<tr>
<td><strong>Species reactivity</strong></td>
<td>Reacts with: Mouse, Rat, Chicken, Human, Xenopus laevis</td>
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<tr>
<td><strong>Immunogen</strong></td>
<td>Recombinant fragment corresponding to Human KDM5C/ Jarid1C/ SMCX aa 1-250. Isoform 4. Sequence: MEPGSDFLPPECPVFEPSWAEFRDPLGYAKIRPIA EKSGICKIRPPA IVVEGGYEAICKDRRWARVAQRNLNPNGKNIGSSLRS HYERIVYPYEMY QSGANLQCNTRPFDNEEKDKYKPHSIPLRQSVQPS KFNSYGRRAKRLQ PDEPEPTEDEKNPELKKLOIYGAGPKMMGLGLMAKD KTLRKDDKEGPEC PPTVVKEELGGDVKVESTSPKTFLSESKEELSHSPEP CTKMTMRLRRNHS</td>
</tr>
<tr>
<td><strong>Database link</strong></td>
<td>P41229-4</td>
</tr>
<tr>
<td><strong>Positive control</strong></td>
<td>U2OS cell lysate transfected with KDM5C / Jarid1C / SMCX siRNA, U2OS, mouse embryo fibroblasts (MEFs), rat INS1 and chicken DT40 cell lysates.</td>
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**Properties**

<table>
<thead>
<tr>
<th>Form</th>
<th>Liquid</th>
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<tbody>
<tr>
<td><strong>Storage instructions</strong></td>
<td>Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.</td>
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<tr>
<td><strong>Purity</strong></td>
<td>Whole antiserum</td>
</tr>
<tr>
<td><strong>Clonality</strong></td>
<td>Polyclonal</td>
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</table>
**Isotype**
IgG

**Applications**

Our Abpromise guarantee covers the use of ab190181 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tbody>
<tr>
<td>IP</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
</tr>
<tr>
<td>ICC/IF</td>
<td>1/2000</td>
<td></td>
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</table>

**Target**

**Function**
Histone demethylase that specifically demethylates 'Lys-4' of histone H3, thereby playing a central role in histone code. Does not demethylate histone H3 'Lys-9', H3 'Lys-27', H3 'Lys-36', H3 'Lys-79' or H4 'Lys-20'. Demethylates trimethylated and dimethylated but not monomethylated H3 'Lys-4'. Participates in transcriptional repression of neuronal genes by recruiting histone deacetylases and REST at neuron-restrictive silencer elements.

**Tissue specificity**
Expressed in all tissues examined. Highest levels found in brain and skeletal muscle.

**Involvement in disease**
Defects in KDM5C are the cause of mental retardation syndromic X-linked JARID1C-related (MRXSJ) [MIM:300534]. MRXSJ is characterized by significantly sub-average general intellectual functioning associated with impairments in adaptive behavior and manifested during the developmental period. MRXSJ patients manifest mental retardation associated with variable features such as slowly progressive spastic paraplegia, seizures, facial dysmorphism.

**Sequence similarities**
Belongs to the JARID1 histone demethylase family.
Contains 1 ARID domain.
Contains 1 JmjC domain.
Contains 1 JmjN domain.
Contains 2 PHD-type zinc fingers.

**Domain**
The first PHD-type zinc finger domain recognizes and binds H3-K9Me3. Both the JmjC domain and the JmjN domain are required for enzymatic activity.

**Cellular localization**
Nucleus.

**Images**
**Western blot - Anti-KDM5C / Jarid1C / SMCX antibody - N-terminal (ab190181)**

**All lanes**: Anti-KDM5C / Jarid1C / SMCX antibody - N-terminal (ab190181) at 1/2000 dilution

**Lane 1**: Human U2OS cell lysate  
**Lane 2**: Human U2OS cell lysate transfected with KDM5C / Jarid1C / SMCX siRNA  
**Lane 3**: Mouse embryo fibroblasts (MEFs) cell lysate  
**Lane 4**: Rat INS1 cell lysate  
**Lane 5**: Chicken DT40 cell lysate

Lysates/proteins at 30 µg per lane.

**Predicted band size**: 175 kDa

**Western blot - Anti-KDM5C / Jarid1C / SMCX antibody - N-terminal (ab190181)**

**All lanes**: Anti-KDM5C / Jarid1C / SMCX antibody - N-terminal (ab190181) at 1/2000 dilution

**Lane 1**: Xenopus laevis crude egg extracts  
**Lane 2**: U2OS whole cell lysate

Lysates/proteins at 50 µg per lane.

**Predicted band size**: 175 kDa
Western blot analysis using ab190181 of immunoprecipitated U2OS cells extracts:

Lane 1: Input.
Lane 2: Immunoprecipitation with control serum.
Lane 3: Immunoprecipitation with ab190181 (5 µL)

Immunofluorescence analysis of U2OS cells labeling KDM5C / Jarid1C / SMCX (green) using ab190181 at a 1/2000 dilution. Nuclei were stained with DAPI (blue).

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