

## Anti-RBP2/JARID1A antibody, mouse monoclonal (18E8)

71-177 100 ug

RBP2 was originally identified as a retinoblastoma binding protein. It is also known as JARID1A (Jumonji, AT rich interactive domain 1A). RBP2 plays both negative and positive roles in RB-mediated transcriptional activation, depending on the kinds of genes and regulates differentiation by its function as an H3K4 histone demethylase (1, 2 & 3).

## **Applications**

- 1. Western blotting (~1ug/ml)
- 2. Immunofluorescence staining
- 3. Flow Cytometry (1µg for 106 cells.)

Immunogen: A synthetic peptide corresponding to human RBP2, amino acids 1416-1434.

**Isotype:** Mouse IgG2a kappa

Form: Purified monoclonal antibody (IgG) 1mg/ml in PBS, 50% glycerol, filter-sterilized

Specificity: Specific to human and mouse RBP2. Can detect endogenous levels of RBP2.

**Storage:** Sent at 4°C or at -20°C and store at -20°C

Data Link UniProtKB/Swiss-Prot P29375 (KDM5A\_HUMAN)

## References

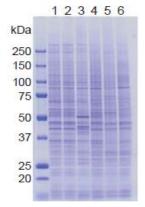
- Lopez-Bigas N et al "Genome-wide analysis of the H3K4 histone demethylase RBP2 reveals a transcriptional program controlling differentiation" Moll Cell 31: 520-530 (2008) PMID: 18722178
- 2. Klose RJ *et al* "The retinoblastoma binding protein BRP2 is an H3K4 demethylase" *Cell* **128**: 889-900 (2007) PMID: <u>17320163</u>
- 3. Christensen J *et al* "RBP2 belongs to a family of demethylases, specific for tri- and dimethylated lysine 4 on histone 3" *Cell* 128:1063-1076 (2007) PMID: 17320161

Fig.1 Identification of RBP2 in crude cell extracts by Western blotting with antibody 18E8.

Samples: 1. HeLa control siRNA 2. HeLa RBP2 siRNA 3. MCF7 4. U2OS 5. NIH3T3

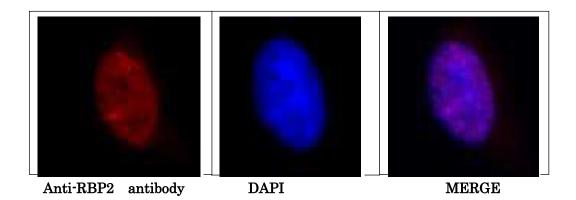
6. J1 (mouse ES)

A. SDS-PAGE with CBB staining B. Western blotting (detection: ECL)









## Fig.2 Immunofluorescence staining of HeLa cell with anti-RBP" antibody.

- 1. HeLa cells were fixed with 4% paraformaldehyde overnight, permealized with 0.25% Triton X-100 in PBS for 10 min.
- 2. Incubate cells with 1.5% BSA in PBS for 30 min to block non-specific binding of the antibodies. Incubate the cells with 1/2,000 diluted anti-RBP2 antibody (18E8) in 1% BSA in PBS at 4°C overnight.
- 3. Incubate cells with a secondary antibody, goat anti-mouse IgG conjugated with Alex 488, at 1/1,000 dilution in 1% BSA for 1 hr at room temperature.
- 4. Nucleus (DNA) was stained with DAPI

Related product: #71-175 anti-RBP2/ JARID1A antibody, mouse monoclonal (9A6)