Catalog No. 71-177EX

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

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 10^6 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.

Size: 50 ug

Storage: Sent at 4℃ or at -20℃ and store at -20℃

Data Link UniProtKB/Swiss-Prot **P29375** (KDM5A_HUMAN)

References

1. 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: 17320163
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

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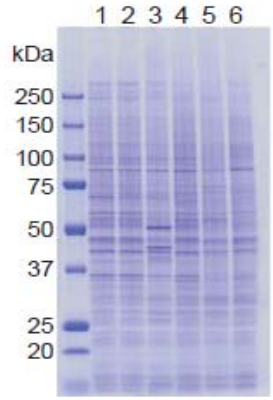
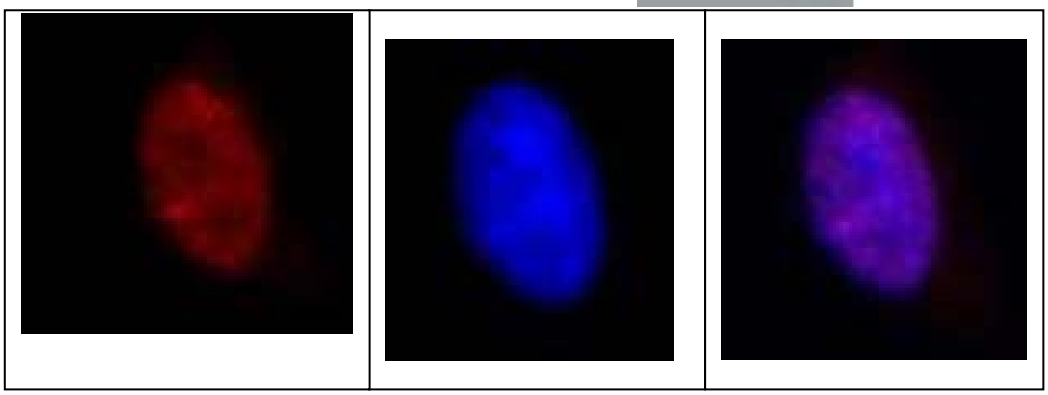
Fig.1 Identification of RBP2 in crude cell extracts by Western blotting with antibody 18E8.

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)





Anti-RBP2 antibodv DAPI MERGE

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℃ 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

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