

Brg1 Antibody

Catalog No: #21662

Package Size: #21662-1 50ul #21662-2 100ul

Orders: order@signalwayantibody.com

Support: tech@signalwayantibody.com

Description

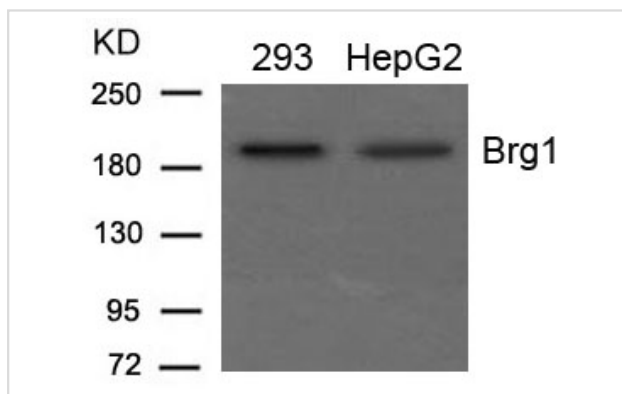
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|-----------------------|---|
| Product Name | Brg1 Antibody |
| Host Species | Rabbit |
| Clonality | Polyclonal |
| Purification | Antibodies were produced by immunizing rabbits with synthetic peptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific peptide. |
| Applications | WB |
| Species Reactivity | Hu Ms Rt |
| Specificity | The antibody detects endogenous level of total Brg1 protein. |
| Immunogen Type | Peptide-KLH |
| Immunogen Description | Peptide sequence around aa.701~705(V-D-A-R-H) derived from Human Brg1. |
| Target Name | Brg1 |
| Other Names | BRG1; SNF2; SWI2; RTPS2; BAF190 |
| Accession No. | Swiss-Prot: P51532NCBI Protein: NP_001122316.1 |
| Uniprot | P51532 |
| GeneID | 6597; |
| Concentration | 1.0mg/ml |
| Formulation | Supplied at 1.0mg/mL in phosphate buffered saline (without Mg ²⁺ and Ca ²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. |
| Storage | Store at -20°C for long term preservation (recommended). Store at 4°C for short term use. |

Application Details

Predicted MW: 185,200kd

Western blotting: 1:500~1:1000

Images



Western blot analysis of extracts from 293 and HepG2 cells using Brg1 Antibody #21662.

Background

Transcriptional coactivator cooperating with nuclear hormone receptors to potentiate transcriptional activation. Component of the CREST-BRG1 complex, a multiprotein complex that regulates promoter activation by orchestrating a calcium-dependent release of a repressor complex and a recruitment of an activator complex. In resting neurons, transcription of the c-FOS promoter is inhibited by BRG1-dependent recruitment of a phospho-RB1-HDAC repressor complex. Upon calcium influx, RB1 is dephosphorylated by calcineurin, which leads to release of the repressor complex. At the same time, there is increased recruitment of CREBBP to the promoter by a CREST-dependent mechanism, which leads to transcriptional activation. The CREST-BRG1 complex also binds to the NR2B promoter, and activity-dependent induction of NR2B expression involves a release of HDAC1 and recruitment of CREBBP. Belongs to the neural progenitors-specific chromatin remodeling complex (npBAF complex) and the neuron-specific chromatin remodeling complex (nBAF complex). During neural development a switch from a stem/progenitor to a post-mitotic chromatin remodeling mechanism occurs as neurons exit the cell cycle and become committed to their adult state. The transition from proliferating neural stem/progenitor cells to post-mitotic neurons requires a switch in subunit composition of the npBAF and nBAF complexes. As neural progenitors exit mitosis and differentiate into neurons, npBAF complexes which contain ACTL6A/BAF53A and PHF10/BAF45A, are exchanged for homologous alternative ACTL6B/BAF53B and DPF1/BAF45B or DPF3/BAF45C subunits in neuron-specific complexes (nBAF). The npBAF complex is essential for the self-renewal/proliferative capacity of the multipotent neural stem cells. The nBAF complex along with CREST plays a role regulating the activity of genes essential for dendrite growth. SMARCA4/BAF190A may promote neural stem cell self-renewal/proliferation by enhancing Notch-dependent proliferative signals, while concurrently making the neural stem cell insensitive to SHH-dependent differentiating cues. Also involved in vitamin D-coupled transcription regulation via its association with the WINAC complex, a chromatin-remodeling complex recruited by vitamin D receptor (VDR), which is required for the ligand-bound VDR-mediated transrepression of the CYP27B1 gene. Acts as a corepressor of ZEB1 to regulate E-cadherin transcription and is required for induction of epithelial-mesenchymal transition (EMT) by ZEB1.

Kitagawa H., Fujiki R., Yoshimura K. *Cell* 113:905-917(2003)

Park J.I., Venteicher A.S., Hong J.Y. *Nature* 460:66-72(2009)

Sanchez-Tillo E., Lazaro A., Torrent R. *Oncogene* 29:3490-3500(2010)

Note: This product is for in vitro research use only