# abcam

### Product datasheet

## Recombinant human BRG1 protein ab82237

2 References 1 图像

描述

产品名称 重组人BRG1蛋白

生物活性 ab82237 contains no detectable proteases, DNase and RNase activity.

纯**度** > 95 % SDS-PAGE.

ab82237 is greater than 95% homogeneous, purified by affinity and FPLC chromatography.

表达系统 Baculovirus infected insect cells

**蛋白长度** Full length protein

无动物成分 No

性质 Recombinant

种属 Human 预测分子量 191 kDa

标签 His tag N-Terminus

技术指标

Our Abpromise guarantee covers the use of ab82237 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

应**用** Functional Studies

Western blot

形式 Liquid

制备和贮存

稳定性和存储 Shipped on dry ice. Upon delivery aliquot and store at -80℃. Avoid freeze / thaw cycles.

pH: 7.9

Constituents: 0.75% Potassium chloride, 0.0154% DTT, 0.316% Tris HCl, 0.00584% EDTA, 20%

Glycerol (glycerin, glycerine)

This product is an active protein and may elicit a biological response in vivo, handle with caution.

常规信息

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#### 功能

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 neuronspecific 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 selfrenewal/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 (By similarity). 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 VDRmediated transrepression of the CYP27B1 gene. Acts as a corepressor of ZEB1 to regulate Ecadherin transcription and is required for induction of epithelial-mesenchymal transition (EMT) by ZEB1.

组织特异性

疾病相关

序列相似性

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翻译后修饰

细胞定位

Colocalizes with ZEB1 in E-cadherin-negative cells from established lines, and stroma of normal colon as well as in de-differentiated epithelial cells at the invasion front of colorectal carcinomas (at protein level).

Defects in SMARCA4 are the cause of rhabdoid tumor predisposition syndrome type 2 (RTPS2) [MIM:613325]. RTPS2 is a familial cancer syndrome predisposing to renal or extrarenal malignant rhabdoid tumors and to a variety of tumors of the central nervous system, including choroid plexus carcinoma, medulloblastoma, and central primitive neuroectodermal tumors. Rhabdoid tumors are the most aggressive and lethal malignancies occurring in early childhood.

Belongs to the SNF2/RAD54 helicase family.

Contains 1 bromo domain.

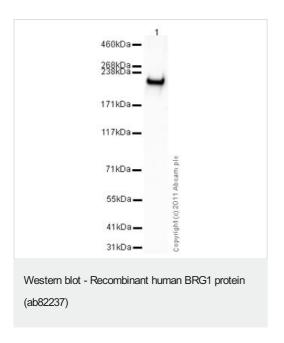
Contains 1 helicase ATP-binding domain. Contains 1 helicase C-terminal domain.

Contains 1 HSA domain.

Phosphorylated upon DNA damage, probably by ATM or ATR.

Nucleus.

图片



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