

Rabbit BRG1 Polyclonal Antibody | anti-BRG1 antibody

Anti-BRG1 Picoband antibody

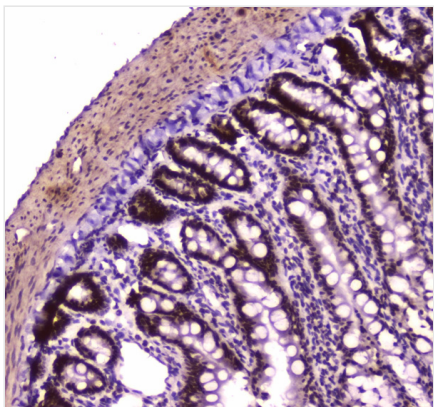
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA124557	Rabbit	Human, Mouse, Rat No cross reactivity with other proteins.	Western Blot, Immunohistochemistry, ELISA

PRODUCT SYNONYMS

BRG1; Polyclonal Antibody; Anti-BRG1 Picoband antibody; Transcription activator BRG1; TP-dependent helicase SMARCA4; BRG1-associated factor 190A; BAF190A; Mitotic growth and transcription activator; Protein BRG-1; Protein brahma homolog 1; SNF2-beta; SWI/SNF-related matrix-associated actin-dependent regulator of chromatin subfamily A member 4; SMARCA4; SNF2B; SNF2L4; anti-BRG1 antibody

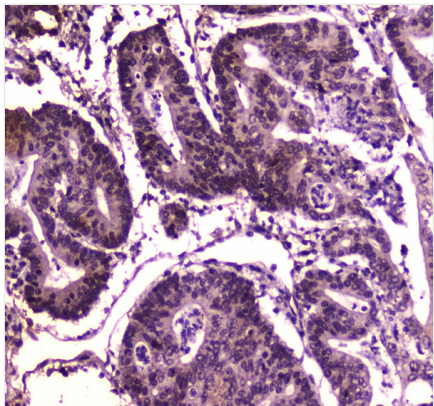
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat No cross reactivity with other proteins.
Clonality	Polyclonal
Form/Format	Lyophilized
Sequence Length	1,613
Applicable Applications for anti-BRG1 antibody	WB (Western Blot), IHC (Immunohistochemistry), ELISA
Immunogen	E Coli-derived human BRG1 recombinant protein (Position: Q555-E763).
Subcellular Localization	Nucleus.
Tissue Specificity	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).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Contents	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



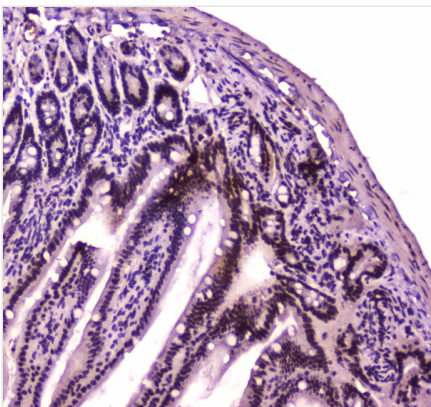
IHC (Immunohistochemistry)

Figure 4. IHC analysis of BRG1 using anti-BRG1 antibody (AAA124557).BRG1 was detected in paraffin-embedded section of rat small intestine tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-BRG1 Antibody (AAA124557) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



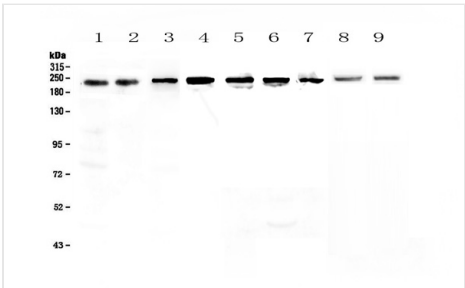
IHC (Immunohistochemistry)

Figure 2. IHC analysis of BRG1 using anti-BRG1 antibody (AAA124557).BRG1 was detected in paraffin-embedded section of human intestinal cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-BRG1 Antibody (AAA124557) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 3. IHC analysis of BRG1 using anti-BRG1 antibody (AAA124557).BRG1 was detected in paraffin-embedded section of mouse small intestine tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-BRG1 Antibody (AAA124557) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



WB (Western Blot)

Figure 1. Western blot analysis of BRG1 using anti-BRG1 antibody (AAA124557).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.Lane 1: human Hela whole cell lysates,Lane 2: human placenta tissue lysates,Lane 3: human MCF-7 whole cell lysates,Lane 4: human A549 whole cell lysates,Lane 5: human A431 whole cell lysates,Lane 6: human SGC-7901 whole cell lysates,Lane 7: human 22RV1 whole cell lysates,Lane 8: rat small intestine tissue lysates,Lane 9: mouse small intestine tissue lysates.After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-BRG1 antigen affinity purified polyclonal antibody at 0.5ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for BRG1 at approximately 220KD. The expected band size for BRG1 is at 185KD.

ADDITIONAL INFORMATION

Related Product Information for anti-BRG1 antibody	Description: Transcription activator BRG1 also known as ATP-dependent helicase SMARCA4 is a protein that in humans is encoded by the SMARCA4 gene. The protein encoded by this gene is a member of the SWI/SNF family of proteins and is similar to the brahma protein of Drosophila. Members of this family have helicase and ATPase activities and are thought to regulate transcription of certain genes by altering the chromatin structure around those genes. The encoded protein is part of the large ATP-dependent chromatin remodeling complex SNF/SWI, which is required for transcriptional activation of genes normally repressed by chromatin. In addition, this protein can bind BRCA1, as well as regulate the expression of the tumorigenic protein CD44. Mutations in this gene cause rhabdoid tumor predisposition syndrome type 2. Multiple transcript variants encoding different isoforms have been found for this gene. Protein Function: 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 (By similarity). Acts as a corepressor of ZEB1 to regulate E-cadherin transcription and is required for induction of epithelial-mesenchymal transition (EMT) by ZEB1.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	192807312
NCBI GeneID	6597
NCBI Accession #	NP_001122316.1
NCBI GenBank Nucleotide #	NM_001128844.1
UniProt Accession #	P51532; O95052; Q9HBD3; B1A8Z4; B1A8Z5; B1A8Z6; B1A8Z7; E9PBR8
Molecular Weight	181,261 Da
NCBI Official Full Name	transcription activator BRG1 isoform B
NCBI Official Synonym Full Names	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 4
NCBI Official Symbol	SMARCA4
NCBI Official Synonym Symbols	BRG1; CSS4; SNF2; SWI2; MRD16; RTPS2; BAF190; SNF2L4; SNF2LB; hSNF2b; BAF190A
NCBI Protein Information	transcription activator BRG1
UniProt Protein Name	Transcription activator BRG1
UniProt Gene Name	SMARCA4
UniProt Synonym Gene Names	BAF190A; BRG1; SNF2B; SNF2L4; BAF190A

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

