

SMARCA4/BRG1 recombinant protein

Recombinant SMARCA4/BRG1 (1448-1569) protein

CATALOG # AAA59660	HOST E Coli
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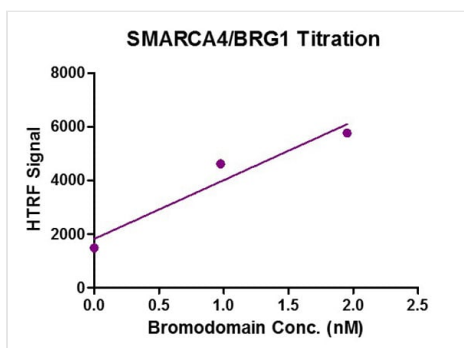
PRODUCT SYNONYMS

SMARCA4/BRG1; Recombinant SMARCA4/BRG1 (1448-1569) protein; BRG1; SNF2; SWI2; MRD16; RTPS2; BAF190; SNF2L4; SNF2LB; hSNF2b; BAF190A; SMARCA4/BRG1 recombinant protein

PRODUCT SPECIFICATIONS

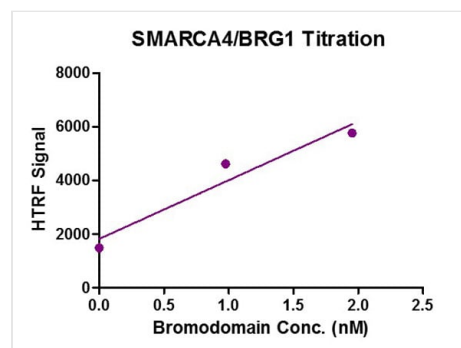
Host	E Coli
Form/Format	Recombinant SMARCA4/BRG1 (1448-1569) protein is supplied in 25mM Tris-HCl pH8.0, 300mM NaCl, 5% glycerol.
Protein Species	Human
Tag	DYKDDDDK-Tag, His-Tag
Notes	Recombinant SMARCA4/BRG1 (1448-1569) is suitable for use in binding assays, inhibitor screening, and selectivity profiling.
Dry Ice Note	The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.
Preparation and Storage	Recombinant proteins in solution are temperature sensitive and must be stored at -80 degree C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. Shipping Temp: Dry Ice

IMAGES



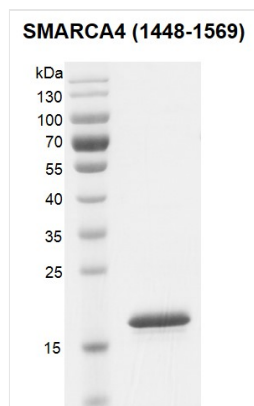
Application Data

HTRF Assay for Recombinant SMARCA4/BRG1 (1448-1569) Activity. 3.3 uM histone peptide H3K14ac was incubated with SMARCA4/BRG1 (1448-1569) in reaction buffer including 50 mM HEPES-NaOH pH 7.0, 0.1% BSA for 1 hour at room temperature. Anti-DYKDDDDK antibody was used to detect reaction products.



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SDS-PAGE

Recombinant SMARCA4 / BRG1 (1448-1569) protein gel. SMARCA4 / BRG1 (1448-1569) protein was run on a 10% SDS-PAGE gel and stained with Coomassie Blue.

ADDITIONAL INFORMATION

Related Product Information for SMARCA4/BRG1 recombinant protein

Short Description: The peptide corresponding to amino acids 1448-1569 that contains the bromodomain sequences of SMARCA4 (accession number NP_003063.2) was expressed in E Coli and contains an N-terminal His-tag and C-terminal DYKDDDDK tag with an observed molecular weight of 20.4 kDa. It shows binding specificity for acetylated H2BK5, H3K14 and H3K9/14. SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 4 (SMARCA4), also known as BRG1, 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. SMARCA4 contains bromodomains for interaction with other proteins. The bromodomain functions as a 'reader' of epigenetic histone marks and regulates chromatin structure and gene expression by linking associated proteins to the recognized acetylated nucleosomal targets. SMARCA4 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. Gene mutation causes Rhabdoid Tumor Predisposition Syndrome Type 2. SMARCA4 functions as a transcriptional coactivator cooperating with nuclear hormone receptors to potentiate transcriptional activation. It also interacts with glucocorticoid receptor (GR), TOPBP1 and progesterone receptor (PR) and is a component of the BAF53 complex which acetylates histone H4 and H2A within nucleosomes. Somatic mutations of SMARCA4 have been detected in some cancer cell lines and loss of SMARCA4 is associated with decreased survival in cancer patients. Recombinant SMARCA4/BRG1 (1448-1569) can be used in binding assays and inhibitor screening.

Background: SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 4 (SMARCA4), also known as BRG1, 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. SMARCA4 contains bromodomains for interaction with other proteins. The bromodomain functions as a 'reader' of epigenetic histone marks and regulates chromatin structure and gene expression by linking associated proteins to the recognized acetylated nucleosomal targets. SMARCA4 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. Gene mutation causes Rhabdoid Tumor Predisposition Syndrome Type 2. SMARCA4 functions as a transcriptional coactivator cooperating with nuclear hormone receptors to potentiate transcriptional activation. It also interacts with glucocorticoid receptor (GR), TOPBP1 and progesterone receptor (PR) and is a component of the BAF53 complex which acetylates histone H4 and H2A within nucleosomes. Somatic mutations of SMARCA4 have been detected in some cancer cell lines and loss of SMARCA4 is associated with decreased survival in cancer patients.

Product Categories/Family for SMARCA4/BRG1 recombinant protein

[Recombinant Proteins](#); [Bromodomain](#)

NCBI AND UNIPROT INFORMATION

NCBI GI #	192807310
NCBI GeneID	6597

NCBI Accession #	NP_003063.2
NCBI GenBank Nucleotide #	NM_003072
Molecular Weight	181,261 Da
NCBI Official Full Name	Homo sapiens SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 4 (SMARCA4), transcript variant 3, mRNA
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; SNF2; SWI2; MRD16; RTPS2; BAF190; SNF2L4; SNF2LB; hSNF2b; BAF190A
NCBI Protein Information	transcription activator BRG1; ATP-dependent helicase SMARCA4; BRG1-associated factor 190A; BRM/SWI2-related gene 1; SNF2-beta; SNF2-like 4; brahma protein-like 1; global transcription activator homologous sequence; homeotic gene regulator; mitotic growth

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.

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Online datasheet: <https://www.aaabiotech.com/smarca4/brg1-recombinant-protein-e-coli/59660>