

Datasheet for ABIN3095552

SMARCA4 Protein (AA 1-1647) (His tag)[Go to Product page](#)**1** Image

Overview

Quantity:	1 mg
Target:	SMARCA4
Protein Characteristics:	AA 1-1647
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SMARCA4 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), ELISA, Western Blotting (WB), Crystallization (Crys)

Product Details

Sequence:	MSTDPPLGG TPRGPSPGP GPSPGAMLGP SPGPSPGSAH SMMGPSPGPP SAGHIPTQG PGGYPQDNMH QMHKPMESMH EKGMSDDPRY NQMKGMGMRS GGHAGMGPPP SPMDQHSQGY PSPLGGSEHA SSPVPASGPS SGPQMSSGPG GAPLDGADPQ ALGQQNRGPT PFNQNLHQL RAQIMAYKML ARGQLPDHL QMAVQGKRPM PGMQQQMPTL PPPSVSATGP GPGPGPGPGP GPGPAPPNYS RPHGMGGPNM PPPGPGSVPP GMPGQPPGGP PKPWPEGPMA NAAAPTSTPQ KLIPPQPTGR PSPAPPAVPP AASPMPPQT QSPGQPAQPA PMVPLHQKQS RITPIQKPRG LDPVEILQER EYRLQARIAH RIQELNLPG SLAGDLRTKA TIELKALRL NFQRQLRQEV VVCMRRDTAL ETALNAKAYK RSKRQSLREA RITEKLEKQQ KIEQERKRRQ KHQEYLSIL QHAKDFKEYH RSVTGKIQKL TKAVATYHAN TEREQKKENE RIEKERMRL MAEDEEGYRK LIDQKKDKRL AYLLQQTDEY VANLTELVRQ HKAAQVAKEK KKKKKKKKAE NAEGQTPAIG PDGEPLDETS QMSDLPVKVI HVESGKILTG TDAPKAGQLE AWLEMNPGYE VAPRSDSEES GSEEEEEEEE EEQPQAAQPP TLPVEEKKKI PDPDSDDVSE V DARHIIENA
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KQDVDDEYGV SQALARGLQS YYAVAHAVTE RVDKQSALMV NGVLKQYQIK GLEWLVSLYN
NNLNGILADE MGLGKTIQTI ALITYLMEHK RINGPFLIIV PLSTLSNWAY EFDKWAPSVV
KVSYKGSPAA RRAFVPQLRS GKFNVLTTY EYIHKHIL AKIRWKYMIV DEGHRMKNHH
CKLTQVLNTH YVAPRRLLT GTPLQNKLP LWNLLNLLP TIFKSCSTFE QWFNAPFAMT
GEKVDLNEEE TILIRRLHK VLRPFLLRL KKEVEAQLPE KVEYVIKCDM SALQRVLYRH
MQAKGVLLTD GSEKDKKGGK GTKTLMNTIM QLRKICNHPY MFQHIIESFS EHLGFTGGIV
QGLDLYRASG KFELLDRLP KLRATNHKVL LFCQMTSLMT IMEDYFAYRG FKYLRLDGT
KAEDRGMLLK TFNEPGSEYF IFLLSTRAGG LGLNLQSADT VIIFSDSWNP HQDLQAQDRA
HRIGQQNEVR VLRCLTVNSV EEKILAAKY KLNVDQKVIQ AGMFDQKSSS HERRAFLQAI
LEHEEQDESR HCSTGSGSAS FAHTAPPPAG VNPDLPEPPL KEEDEVPDDE TVNQMIARHE
EEFDLFMRMD LDRRREEARN PKRKPRLMEE DELPSWIKD DAEVERLTCE EEEKMFGRG
SRHRKEVDYS DSLTEKQWLK AIEEGTLEEI EEEVRQKKSS RKRKRSDAG SSTPTTSTRS
RDKDDESKKQ KKRGRPPAEK LSPNPPNLTK KMKKIVDAVI KYKDSSSGRQ LSEVFIQLPS
RKELPEYYEL IRKPVDFKKI KERIRNHKYR SLNDLEKDVM LLCQNAQTFN LEGSLIYEDS
IVLQSVFTSV RQKIEKEDDS EGESEEEEE GEEGSESES RSVKVKIKLG RKEKAQDRLK
GGRRRPSRGS RAKPVVSDDD SEEEQEEDRS GSGSEED

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Human SMARCA4 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm.

Product Details

The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells: 1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE. 2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	SMARCA4
Alternative Name:	SMARCA4 (SMARCA4 Products)
Background:	<p>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</p>

Target Details

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. {ECO:0000250, ECO:0000269|PubMed:19571879, ECO:0000269|PubMed:20418909}.

Molecular Weight: 185.6 kDa Including tag.

UniProt: [P51532](#)

Pathways: [Intracellular Steroid Hormone Receptor Signaling Pathway](#), [Regulation of Intracellular Steroid Hormone Receptor Signaling](#), [Stem Cell Maintenance](#)

Application Details

Application Notes: In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Comment: In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: 100 mM NaCl, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.

Handling Advice: Avoid repeated freeze-thaw cycles.

Handling

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)

Images



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process