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# ARID5B Protein (AA 1-1188) (Strep Tag)



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#### Overview

Quantity:	1 mg
Target:	ARID5B
Protein Characteristics:	AA 1-1188
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ARID5B protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

#### **Product Details**

Sequence:

MEPNSLQWVG SPCGLHGPYI FYKAFQFHLE GKPRILSLGD FFFVRCTPKD PICIAELQLL
WEERTSRQLL SSSKLYFLPE DTPQGRNSDH GEDEVIAVSE KVIVKLEDLV KWAHSDFSKW
RCGLRATPVK TEAFGRNGQK EALLRYRQST LNSGLNFKDV LKEKADLGED EEETNVIVLS
YPQYCRYRSM LKRIQDKPSS ILTDQFALAL GGIAVVSRNP QILYCRDTFD HPTLIENESV
CDEFAPNLKG RPRKKKTCPQ RRDSFSGSKD PNNNCDGKVI SKVKGEARSA LTKPKNNHNN
CKKTSNEEKP KLSIGEECRA DEQAFLVALY KYMKERKTPI ERIPYLGFKQ INLWTMFQAA
QKLGGYETIT ARRQWKHIYD ELGGNPGSTS AATCTRRHYE RLILPYERFI KGEEDKPLPP
IKPRKQENNT QENENKTKVS GNKRIKQEMA KNKKEKENTP KPQDTSEVSS EQRKEEETLN
HKSAPEPLPA PEVKGKPEGH KDLGARAPVS RADPEKANET DQGSNSEKEA EEMGDKGLAP
LLPSPPLPPE KDSAPTPGAG KQPLASPSTQ MDSKQEAKPC CFTESPEKDL QGAPFSSFSA
TKPPLTSQNE AEEEQLPATA NYIANCTVKV DQLGSDDIHT ALKQTPKVLV VQSFDMFKDK
DLTGPMNENH GLNYTPLLYS RGNPGIMSPL AKKKLLSQVS GASLSSSYPY GSPPPLISKK

KLIAREDLCS GLSQGHHSQS SDHTAVSRPS VIQHVQSFKN KASEDRKSIN DIFKHDKLSR SDAHRCGFSK HQLGSLADSY ILKQETQEGK DKLLEKRAVS HAHVPSFLAD FYSSPHLHSL YRHTEHHLHN EQSSKYAARD AYQESENGAF LSHKHPEKIH VNYLASLHLQ DKKVAAAEAS TDDQPTDLSL PKNPHKLTSK VLGLAHSTSG SQEIKGASQF QVVSNQSRDC HPKACRVSPM TMSGPKKYPE SLARSGKPHQ VRLENFRKME GMVHPILHRK MSPQNIGAAR PIKRSLEDLD LVIAGKKARA VSPLDPAKEA SGKEKASEQE SEGNKGAYGG HSGAASEGHK LPLSTPIFPG LYSGSLCNSG LNSRLPAGYS HSLQYLKNQT VLSPLMQPLA FHSLVMQRGI FTSPTNSQQL YRHLAAATPV GSSYGDLLHN SIYPLAGINP QAAFPSSQLS SVHPSTKL

Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.

#### Characteristics:

#### Key Benefits:

- Made in Germany from design to production by highly experienced protein experts.
- Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- 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.

#### Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require posttranslational modifications.
- During lysate production, the cell wall and other cellular components that are not required for
  protein production are removed, leaving only the protein production machinery and the
  mitochondria to drive the reaction. During our lysate completion steps, the additional
  components needed for protein production (amino acids, cofactors, etc.) are added to
  produce something that functions like a cell, but without the constraints of a living system all that's needed is the DNA that codes for the desired protein!

#### Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.
- · We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

#### Purification:

Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®):

- 1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE.
- 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:

≥ 80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Endotoxin Level:

Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)

### **Target Details**

Target:		

## Alternative Name:

#### Arid5b (ARID5B Products)

ARID5B

# Background:

AT-rich interactive domain-containing protein 5B (ARID domain-containing protein 5B) (Developmentally and sexually retarded with transient immune abnormalities protein) (Desrt) (MRF1-like) (Modulator recognition factor protein 2) (MRF-2),FUNCTION: Transcription coactivator that binds to the 5'-AATA[CT]-3' core sequence and plays a key role in adipogenesis and liver development. Acts by forming a complex with phosphorylated PHF2, which mediates demethylation at Lys-337, leading to target the PHF2-ARID5B complex to target promoters, where PHF2 mediates demethylation of dimethylated 'Lys-9' of histone H3 (H3K9me2), followed by transcription activation of target genes. The PHF2-ARID5B complex acts as a coactivator of HNF4A in liver (By similarity). Required for adipogenesis: regulates triglyceride metabolism in adipocytes by regulating expression of adipogenic genes. Overexpression leads to induction of smooth muscle marker genes, suggesting that it may also act as a regulator of smooth muscle cell differentiation and proliferation. {ECO:0000250, ECO:0000269|PubMed:12215486, ECO:0000269|PubMed:18070594.

ECO:0000269|PubMed:17962384, ECO:0000269|PubMed:18070594, ECO:0000269|PubMed:19913508}.

# **Target Details** Molecular Weight: 131.8 kDa UniProt: Q8BM75 Pathways: Platelet-derived growth Factor Receptor Signaling **Application Details** In addition to the applications listed above we expect the protein to work for functional studies Application Notes: as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though. Comment: ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications. During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein! Restrictions: For Research Use only Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)