

Product datasheet

Recombinant human ATP citrate lyase protein
ab196090

2 Images

Description

Product name	Recombinant human ATP citrate lyase protein
Biological activity	Specific Activity: ≥440 pmole/min/μg. A 25 μl ACLY reaction is conducted in a buffer containing 40 mM Tris (pH 8.0), 10 mM MgCl ₂ , 2 mM DTT, 2 mM potassium citrate, 0.1 mM CoA and 6-100 ng ab196090 at 30 °C for 60 min.
Purity	> 90 % SDS-PAGE.
Expression system	Baculovirus infected Sf9 cells
Accession	P53396
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Sequence	MSAKAISEQTGKELLYKFICTTSAIQNRFKYARVTPDTD WARLLQDHPWL LSQNLVVKPDQLIKRRGKLGVLGVNLTLDGVKSWLKP RLGQEATVGKATG FLKNFLIEPFVPHSQAEFYVCIYATREGDYVLFHHEGG VDVGDVDAKAQ KLLVGVDEKLNPEDIKKHLLVHAPEDKKEILASFISGLF NFYEDLYFTYL EINPLVVTKDGVVLDLAAKVDATADYICKVKWGDIEF PPPFGREAYPEE AYADLDAKSGASLKLTLNPKGRWMTMVAGGGASVVY SDTICDLGGVNE LANYGEYSGAPSEQQTYDYAKTILSLMTREKHPDGKILII GGSIANFTNV AATFKGIVRAIRDYQGPLKEHEVTIFVRRGGPNYQEGLR VMGEVGKTTGI PIHVFGTETHMTAIVGMALGHRPIPNQPPTAAHTANFLL NASGSTSTPAP SRTASFSESRADEVAPAKKAKPAMPQDSVSPRSLQ GKSTTLFSRHTKAI

VWGMQTRAVQGMLDFDYVCSRDEPSVAAMVYPFTG
DHKQKIFYWGHKEILI
PVFKNMADAMRKHPEVDVLINFASLRSAYDSTMETMN
YAQIRTIAIAEG
IPEALTRKLIKADQKGVTIIGPATVGGIKPGCFKIGNTG
GMLDNILASK
LYRPGSVAYVSRSGGMSNELNNISRTTDGVYEGVAIG
GDRYPGSTFMDH
VLRQDTPGVKMMVVLGEIGGTEEYKICRGIKEGRLTKPI
VCWCIGTCAT
MFSSEVQFGHAGACANQASETAVAKNQALKEAGVFN
PRSFDELGEIIQSV
YEDLVANGVMPAQEVPPPTVPMDISWARELGLIRKP
ASFMTSICDERGQ
ELIYAGMPITEVFKEEMGIGGVLGLLWFQKRLPKYSCQ
FIEMCLMVTADH
GPAVSGAHTIICARAGKDLVSSLTSGLLTIGDRFGGAL
DAAAKMFASKAF
DSGIIPMEFVNKMKKEGKLIMGIGHRVKSINNPDMRVQI
LKDYVRQHFP
TPLLDYALEVEKITTSKKPNLILNVDGLIGVAFVDMRLN
CGSFTREEADE
YDIGALNGIFVLGRSMGFIGHYLDQKRLKQGLYRHPWD
DISYVLPHEMS M

Predicted molecular weight	147 kDa including tags
Amino acids	1 to 1101
Tags	GST tag N-Terminus
Additional sequence information	NM_001096.

Specifications

Our [Abpromise guarantee](#) covers the use of **ab196090** in the following tested applications.

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

Applications	SDS-PAGE Functional Studies
Form	Liquid

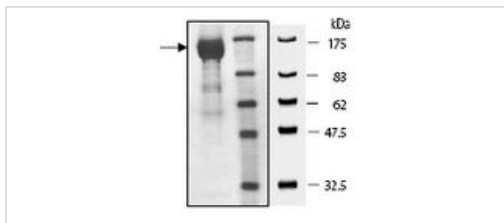
Preparation and Storage

Stability and Storage	Shipped on Dry Ice. Store at -80°C. Avoid freeze / thaw cycle. pH: 8.00 Constituents: 0.71% Tris HCl, 0.72% Sodium chloride, 0.018% Potassium chloride, 0.55% Glutathione, 10% Glycerol, 0.05% DTT This product is an active protein and may elicit a biological response in vivo, handle with caution.
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General Info

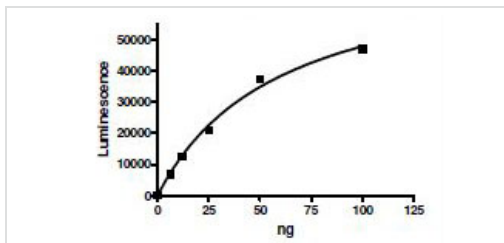
Function	ATP-citrate synthase is the primary enzyme responsible for the synthesis of cytosolic acetyl-CoA in many tissues. Has a central role in de novo lipid synthesis. In nervous tissue it may be involved in the biosynthesis of acetylcholine.
Sequence similarities	In the N-terminal section; belongs to the succinate/malate CoA ligase beta subunit family. In the C-terminal section; belongs to the succinate/malate CoA ligase alpha subunit family. Contains 1 ATP-grasp domain.
Post-translational modifications	ISGylated. Acetylated at Lys-540, Lys-546 and Lys-554 by KAT2B/PCAF. Acetylation is promoted by glucose and stabilizes the protein, probably by preventing ubiquitination at the same sites. Acetylation promotes de novo lipid synthesis. Deacetylated by SIRT2. Ubiquitinated at Lys-540, Lys-546 and Lys-554 by UBR4, leading to its degradation. Ubiquitination is probably inhibited by acetylation at same site.
Cellular localization	Cytoplasm.

Images



10% SDS-PAGE analysis of 7 µg ab196090 with Coomassie staining.

SDS-PAGE - Recombinant human ATP citrate lyase protein (ab196090)



Enzyme activity of ab196090.

Functional Studies - Recombinant human ATP citrate lyase protein (ab196090)

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