

Product datasheet

Recombinant human ATP citrate lyase protein
ab196090

2 Images

Description	
Product name	Recombinant human ATP citrate lyase protein
Biological activity	<p>Specific Activity: ≥440 pmole/min/μg.</p> <p>A 25 μl ACLY reaction is conducted in a buffer containing 40 mM Tris (pH 8.0), 10 mM MgCl₂, 2 mM DTT, 2 mM potassium citrate, 0.1 mM CoA and 6-100 ng ab196090 at 30 °C for 60 min.</p>
Purity	<p>> 90 % SDS-PAGE.</p> <p>Affinity purified.</p>
Expression system	Baculovirus infected Sf9 cells
Accession	<u>P53396</u>
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Sequence	<p>MSAKAISEQTGKELLYKFICTTSAIQNRFKYARVTPD TDWA RLLQDHPWL LSQNLVVKPDQLIKRRGKLGLVGVNLTLDGVKSWLKPRLG QEATVGKATG FLKNFLIEPFVPHSQAEEFYVCYATREGDYVLFHHEGGVD VGDVDAKAQ KLLVGVDEKLNPEDIKKHLLVHAPEDKKEILASFISGLFNFY EDLYFTYL EINPLVVTKDGVYVLDLAAKVDATADYICKVKWGDIEFPPP FGREAYPEE AYIADLDAKSGASLKL TLLNPKGRW TMVAGGGASVVYSD TICDLGGVNE LANYGEYSGAPSEQQTYDYAKTILSLMTREKHPDGKILIIGG SIANFTNV AATFKGIVRAIRDYQG PLKEHEVTIFVRRGGPNYQEGLRVM GEVGKTTGI PIHVFGTETHMTAVGMALGHRPIPNQPPTAAHTANFLLNA SGSTSTPAP SRTASFSESRADEVAPAKKAKPAMPQDSVSPRSLQGK STTLFSRHTKAI</p>

VWGMQTRAVQGMLDFDYVCSRDEPSVAAMVYPFTGDH
 KQKFYWGHEILI
 PVFKNMADAMRKHPEVDVLINFASLSAYDSTMETMNYA
 QIRTAIAEG
 IPEALTRKLIKADQKGVTIIGPATVGGIKPGCFKIGNTGGML
 DNILASK
 LYRPGSVAYVSRSGGMSNELNNISRTTDGVYEGVAIGGDR
 YPGSTFMDH
 VLRYQDTPGVKMMVLGEIGGTEEYKICRGIKEGRLTKPMC
 WCIGTCAT
 MFSSEVQFGHAGACANQASETAVAKNQALKEAGVFVPR
 SFDELGEIIQSV
 YEDLVANGVIVPAQEVPPPTVPMDSWARELGLIRKPASF
 MTSICDERGQ
 ELIYAGMPITEVFKEEMGIGGVLLWFQKRLPKYSCQFIE
 MCLMVTADH
 GPAVSGAHNTIICARAGKDLVSSLTSGLLTIGDRFGGALDA
 AAKMFSKAF
 DSGIIPMEFVNKMKKEGKLIMGIGHRVKSINNPDMRVQILKD
 YVRQHFA
 TPLLDYALEVEKITTSKKPNLILNDGLIGVAFVDMRLNCGS
 FTREEADE
 YIDIGALNGIFVLGRSMGFIGHYLDQKRLKQGLYRHPWDDIS
 YVLEPHMS 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

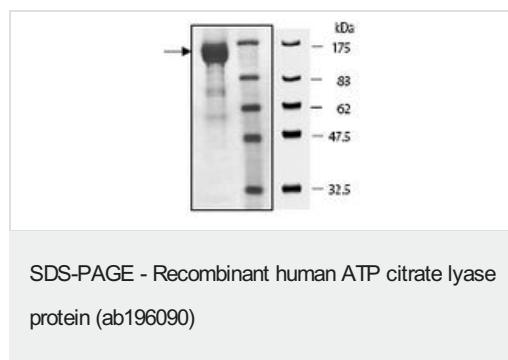
Preparation and Storage

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 (glycerin, glycerine), 0.05% (R*,R*)-1,4-Dimercaptobutan-2,3-diol This product is an active protein and may elicit a biological response in vivo, handle with caution.
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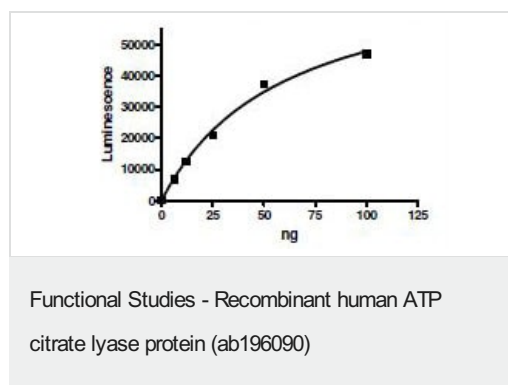
General Info

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.



Enzyme activity of ab196090.

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