

Recombinant Human ATP synthase subunit alpha, mitochondrial(ATP5A1)

Catalog No: #AP70065

Package Size: #AP70065-1 20ug #AP70065-2 100ug #AP70065-3 1mg

Description

Product Name	Recombinant Human ATP synthase subunit alpha, mitochondrial(ATP5A1)
Host Species	E.coli
Purification	Greater than 90% as determined by SDS-PAGE.
Immunogen Description	Expression Region:44-553aaSequence Info:Full Length of Mature Protein
Accession No.	P25705
Calculated MW	59.2 kDa
Tag Info	N-terminal 6xHis-tagged
Target Sequence	QKTGTAEMSSILEERILGADTSVDLEETGRVLSIGDGIARVHGLRNVQAEEMVEFSSGLKGMSLNLEPDNVGV VVFQNDKLIKEGDIVKRTGAIVDVPVGEELLGRVVDALGNAIDGKGPIGSKTRRRVGLKAPGIIPRISVREPMQT GIKAVDSLVPIGRGQRELIIGDRQTGKTSIAIDTIINQKRFNDGSDEKKLYCIYVAIGQKRSTVAQLVKRLTDADA MKYTIVVSATASDAAPLQYLAPYSGCSMGEYFRDNGKHALIYDDLSKQAVAYRQMSLLRRPPGREAYPGDV FYLHSRLLERAAKMNDAFGGGSLTALPVIETQAGDVSAIPTNVISITDGQIFLETIFYKGIRPAINVGLSVSRV GSAAQTRAMKQVAGTMKLELAQYREVAFAQFGSDLDAATQQLSRGVRLTELLKQGQYSPMAIEEQVAVIY AGVRGYLDKLEPSKITKFENAFLSHVVSQHQALLGTIRADGKISEQSDAKLKEIVTNFLAGFEA
Formulation	Tris-based buffer50% glycerol
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C,-80°C. The shelf life of lyophilized form is 12 months at -20°C,-80°C.Notes:Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Background

Mitochondrial membrane ATP synthase (F1F0 ATP synthase or Complex V) produces ATP from ADP in the presence of a proton gradient across the membrane which is generated by electron transport complexes of the respiratory chain. F-type ATPases consist of two structural domains, F1 - containing the extramembraneous catalytic core, and F0 - containing the membrane proton channel, linked together by a central stalk and a peripheral stalk. During catalysis, ATP synthesis in the catalytic domain of F1 is coupled via a rotary mechanism of the central stalk subunits to proton translocation. Subunits alpha and beta form the catalytic core in F1. Rotation of the central stalk against the surrounding alpha3beta3 subunits leads to hydrolysis of ATP in three separate catalytic sites on the beta subunits. Subunit alpha does not bear the catalytic high-affinity ATP-binding sites

References

Nucleotide sequence of a cDNA for the alpha subunit of human mitochondrial ATP synthase.Kataoka H., Biswas C.Biochim. Biophys. Acta 1089:393-395(1991)Research Topic:Metabolism

Note: This product is for in vitro research use only and is not intended for use in humans or animals.