Acyl carrier/ACP protein, S. aureus (P.pastoris, His)

Cat. No.:	HY-P71761
Synonyms:	acpP; hmrB; SAV1232Acyl carrier protein; ACP
Species:	Staphylococcus aureus
Source:	P. pastoris
Accession:	P0A001 (1M-77K)
Gene ID:	58067086
Molecular Weight:	Approximately 10.5 kDa

PROPERTIES

AA Sequence	M E N F D K V K D I I V D R L G V D A D K V T E D A S F K D D L G A D S L D I A E L V M E L E D E F G T E I P D E E A E K I N T V G D A V K F I N S L E K
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against solution in Tris-based buffer, 50% glycerol.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	Acyl carrier protein (ACP) is a principal partner in the cytosolic and mitochondrial fatty acid synthesis (FAS) pathways. ACP is evolutionarily conserved small α-helical proteins that present acyl chain intermediates to catalytic sites of enzymes in the fatty acid synthesis (FAS) pathway. The active form holo-ACP serves as FAS platform, using its 4'-phosphopantetheine group to present covalently attached FAS intermediates to the enzymes responsible for the acyl chain elongation process. Both ptFAS and mtFAS systems utilize acyl carrier protein (ACP) as a cofactor protein that shuttles acyl intermediates between active sites of the catalytic components of each FAS system[1][2].

REFERENCES

[1]. Ali J Masud, et al. Mitochondrial acyl carrier protein (ACP) at the interface of metabolic state sensing and mitochondrial function. Biochim Biophys Acta Mol Cell Res.

2019 Dec;1866(12):118540.

[2]. Xinyu Fu, et al. Mitochondrial Fatty Acid Synthase Utilizes Multiple Acyl Carrier Protein Isoforms. Plant Physiol. 2020 Jun;183(2):547-557.

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