

**TFP1/HADHA Blocking Peptide**  
**Catalog # PBV10341b****Specification**

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**TFP1/HADHA Blocking Peptide - Product Information**

Primary Accession	<a href="#">P40939</a>
Gene ID	<b>3030</b>
Calculated MW	<b>83000</b>

**TFP1/HADHA Blocking Peptide - Additional Information****Gene ID** 3030**Application & Usage**

**The peptide is used for blocking the antibody activity of TFP1. It usually blocks the antibody activity completely in Western blot analysis by incubating the peptide with equal volume of antibody for 30-60 minutes at 37°C.**

**Other Names**

Trifunctional enzyme subunit alpha, mitochondrial, 78 kDa gastrin-binding protein, TP-alpha, Long-chain enoyl-CoA hydratase, 4.2.1.17, Long chain 3-hydroxyacyl-CoA dehydrogenase, 1.1.1.211, HADHA, HADH

**Target/Specificity**

TFP1

**Formulation**

50 µg (0.5 mg/ml) in phosphate buffered saline (PBS), pH 7.2, containing 50% glycerol, 1% BSA and 0.02% thimerosal.

**Reconstitution & Storage**

-20 °C

**Background Descriptions****Precautions**

TFP1/HADHA Blocking Peptide is for research use only and not for use in diagnostic or therapeutic procedures.

**TFP1/HADHA Blocking Peptide - Protein Information****Name** HADHA**Synonyms** HADH**Function**

Mitochondrial trifunctional enzyme catalyzes the last three of the four reactions of the mitochondrial beta-oxidation pathway (PubMed:<a href="http://www.uniprot.org/citations/8135828" target="\_blank">8135828</a>, PubMed:<a href="http://www.uniprot.org/citations/1550553" target="\_blank">1550553</a>, PubMed:<a href="http://www.uniprot.org/citations/29915090" target="\_blank">29915090</a>, PubMed:<a href="http://www.uniprot.org/citations/30850536" target="\_blank">30850536</a>). The mitochondrial beta-oxidation pathway is the major energy-producing process in tissues and is performed through four consecutive reactions breaking down fatty acids into acetyl-CoA (PubMed:<a href="http://www.uniprot.org/citations/29915090" target="\_blank">29915090</a>). Among the enzymes involved in this pathway, the trifunctional enzyme exhibits specificity for long-chain fatty acids (PubMed:<a href="http://www.uniprot.org/citations/30850536" target="\_blank">30850536</a>). Mitochondrial trifunctional enzyme is a heterotetrameric complex composed of two proteins, the trifunctional enzyme subunit alpha/HADHA described here carries the 2,3-enoyl-CoA hydratase and the 3-hydroxyacyl-CoA dehydrogenase activities while the trifunctional enzyme subunit beta/HADHB bears the 3-ketoacyl-CoA thiolase activity (PubMed:<a href="http://www.uniprot.org/citations/8135828" target="\_blank">8135828</a>, PubMed:<a href="http://www.uniprot.org/citations/29915090" target="\_blank">29915090</a>, PubMed:<a href="http://www.uniprot.org/citations/30850536" target="\_blank">30850536</a>). Independently of the subunit beta, the trifunctional enzyme subunit alpha/HADHA also has a monolysocardiolipin acyltransferase activity (PubMed:<a href="http://www.uniprot.org/citations/23152787" target="\_blank">23152787</a>). It acylates monolysocardiolipin into cardiolipin, a major mitochondrial membrane phospholipid which plays a key role in apoptosis and supports mitochondrial respiratory chain complexes in the generation of ATP (PubMed:<a href="http://www.uniprot.org/citations/23152787" target="\_blank">23152787</a>). Allows the acylation of monolysocardiolipin with different acyl-CoA substrates including oleoyl-CoA for which it displays the highest activity (PubMed:<a href="http://www.uniprot.org/citations/23152787" target="\_blank">23152787</a>).

#### **Cellular Location**

Mitochondrion. Mitochondrion inner membrane Note=Protein stability and association with mitochondrion inner membrane do not require HADHB.

#### **TFP1/HADHA Blocking Peptide - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### **TFP1/HADHA Blocking Peptide - Images**