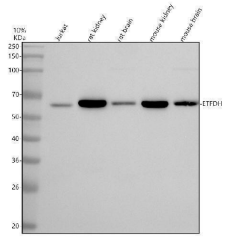
# ETFDH Antibody / Electron transfer flavoprotein dehydrogenase Antibody (FY13563)

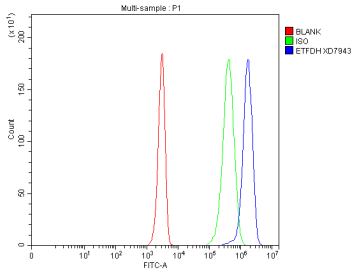
| Catalog No. | Formulation | Size |
|---|---|---|
| FY13563 | 0.5mg/ml if reconstituted with 0.2ml sterile DI water | 100 ug |

**Bulk quote request**

| | |
|---|---|
| **Species Reactivity** | Human, Mouse, Rat |
| **Format** | Antigen affinity purified |
| **Host** | Rabbit |
| **Clonality** | Polyclonal (rabbit origin) |
| **Isotype** | Rabbit Ig |
| **Buffer** | Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4. |
| **UniProt** | Q16134 |
| **Applications** | Western blot: 0.5-1ug/ml<br>Flow cytometry: 1-3ug/million cells<br>ELISA: 0.1-0.5 ug/ml |
| **Limitations** | This ETFDH Antibody / Electron transfer flavoprotein dehydrogenase Antibody is provided for laboratory research use only. |




ETFDH Antibody by WB in human and rodent lysates. Western blot analysis using Electron transfer flavoprotein dehydrogenase Antibody detects a band near 68 kDa in human Jurkat (lane 1), rat kidney (lane 2), rat brain (lane 3), mouse kidney (lane 4), and mouse brain (lane 5). The band is consistent with the approximately 68 kDa expected molecular weight. Reduced lysates containing 30 ug protein per lane were separated by 10% SDS-PAGE and transferred to nitrocellulose. After blocking with 5% nonfat milk, membranes were incubated with primary antibody at 0.5 ug/mL overnight at 4oC, followed by HRP-conjugated secondary antibody and chemiluminescent detection.




ETFDH Antibody by FACS in Jurkat cells. Intracellular flow cytometry using Electron transfer flavoprotein dehydrogenase Antibody shows a right-shifted blue fluorescence distribution compared with the green rabbit IgG isotype control and red unstained control. Cells were fixed with 4% paraformaldehyde, permeabilized and blocked with 10% goat serum before staining with primary antibody at 1 ug per 1 x 10^6 cells for 30 minutes at 20oC. Fluoro488-conjugated secondary antibody was applied for 30 minutes before acquisition.

## Description

ETFDH Antibody / Electron transfer flavoprotein dehydrogenase Antibody detects ETFDH, also known as ETF:ubiquinone oxidoreductase. This mitochondrial inner-membrane-associated enzyme transfers electrons from electron transfer flavoprotein (ETF) to the ubiquinone pool of the respiratory chain. Its function connects several mitochondrial oxidation reactions to the broader electron transport system.

During fatty acid beta-oxidation, acyl-CoA dehydrogenases pass electrons to ETF, which then delivers them to ETFDH. Additional flavoprotein-dependent reactions also feed electrons into this route. ETFDH contains redox cofactors that support the movement of electrons toward ubiquinone. As a result, defects in ETFDH can disrupt the oxidation of multiple substrates rather than a single step of fatty acid breakdown.

Pathogenic ETFDH variants cause a form of multiple acyl-CoA dehydrogenase deficiency, also called glutaric acidemia type II. The disorder can involve impaired energy metabolism, accumulation of characteristic organic acids and acylcarnitines, muscle weakness, and other systemic manifestations. Some individuals with ETFDH-related disease respond to riboflavin supplementation, reflecting the relationship between flavin cofactors, enzyme function, and protein stability in certain variants.

ETFDH is particularly important when cells rely on mitochondrial oxidation for energy supply. Its activity illustrates how electron transfer from diverse metabolic enzymes converges on the respiratory chain. NSJ Bioreagents provides the ETFDH Antibody for work involving mitochondrial redox biology and fatty acid oxidation. An ETFDH Antibody can contribute to studies of the biochemical links between flavoprotein metabolism and cellular energy production.

Explore related research targets in our Metabolism Antibody / Metabolism Antibodies collection.

## Application Notes

The ideal working dilution for the ETFDH Antibody / Electron transfer flavoprotein dehydrogenase Antibody should be established by the investigator based on assay conditions.

## Immunogen

The ETFDH Antibody was generated using e. coli-derived human ETFDH recombinant protein (amino acids E104-N602).

## Storage

Store the reconstituted ETFDH Antibody at 4oC for up to one month. For long-term storage, divide into aliquots and keep at -20oC for up to six months. Avoid repeated freeze-thaw cycles.

## Alternate Names

ETFDH antibody, Electron transfer flavoprotein-ubiquinone oxidoreductase, mitochondrial antibody, Electron transfer flavoprotein-ubiquinone oxidoreductase antibody, mitochondrial antibody, electron transfer flavoprotein dehydrogenase antibody, EC:1.5.5.1 antibody, Electron-transferring-flavoprotein dehydrogenase antibody, ETFQO antibody, ETF-QO antibody

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