

## ETFB gene

electron transfer flavoprotein subunit beta

### Normal Function

The *ETFB* gene provides instructions for making one part (the beta subunit) of an enzyme called electron transfer flavoprotein. This enzyme is normally active in the mitochondria, the energy-producing centers in cells. Electron transfer flavoprotein is involved in the process by which fats and proteins are broken down to produce energy.

### Health Conditions Related to Genetic Changes

#### Glutaric acidemia type II

Some mutations in the *ETFB* gene prevent the production of the electron transfer flavoprotein enzyme. Other mutations result in the production of a defective enzyme that cannot fulfill its role in the series of reactions (metabolic pathways) that break down fats and proteins. This enzyme deficiency allows these nutrients, as well as compounds created as the nutrients are partially broken down, to build up to abnormal levels, especially when the body is under stress. Toxic products of incomplete metabolism damage cells in many body systems, resulting in the signs and symptoms of glutaric acidemia type II.

### Other Names for This Gene

- electron transfer flavoprotein beta subunit
- electron transfer flavoprotein, beta polypeptide
- electron-transfer-flavoprotein, beta polypeptide
- ETFB\_HUMAN
- FP585

### Additional Information & Resources

#### Tests Listed in the Genetic Testing Registry

- Tests of ETFB ([https://www.ncbi.nlm.nih.gov/gtr/all/tests/?term=2109\[geneid\]](https://www.ncbi.nlm.nih.gov/gtr/all/tests/?term=2109[geneid]))

## Scientific Articles on PubMed

- PubMed (<https://pubmed.ncbi.nlm.nih.gov/?term=%28ETFB%5BTIAB%5D%29+OR+%28%28MADD%5BTIAB%5D%29+OR+%28electron+transfer+flavoprotein+beta+subunit%5BTIAB%5D%29+OR+%28electron+transfer+flavoprotein+beta-subunit%5BTIAB%5D%29%29+AND+%28%28Genes%5BMH%5D%29+OR+%28Genetic+Phenomena%5BMH%5D%29%29+AND+english%5Bla%5D+AND+human%5Bmh%5D+AND+%22last+3600+days%22%5Bdp%5D%29>)

## Catalog of Genes and Diseases from OMIM

- ELECTRON TRANSFER FLAVOPROTEIN, BETA POLYPEPTIDE; ETFB (<https://oimim.org/entry/130410>)

## Gene and Variant Databases

- NCBI Gene (<https://www.ncbi.nlm.nih.gov/gene/2109>)
- ClinVar ([https://www.ncbi.nlm.nih.gov/clinvar?term=ETFB\[gene\]](https://www.ncbi.nlm.nih.gov/clinvar?term=ETFB[gene]))

## References

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Citation on PubMed (<https://pubmed.ncbi.nlm.nih.gov/8688100>)

## **Genomic Location**

The *ETFB* gene is found on chromosome 19 (<https://medlineplus.gov/genetics/chromosome/19/>).

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