

ENOSF1 Antibody / Mitochondrial enolase superfamily member 1 Antibody (FY13592)

Catalog No.	Formulation	Size
FY13592	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

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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 Na ₂ HPO ₄ .
UniProt	Q7L5Y1
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml Immunoprecipitation : 2ug per 500ug of lysate Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5 ug/ml
Limitations	Intended solely for research purposes, this ENOSF1 Antibody / Mitochondrial enolase superfamily member 1 Antibody is not for clinical use.

ENOSF1 Antibody by IHC in human thyroid carcinoma. Immunohistochemistry of paraffin-embedded human thyroid carcinoma using Mitochondrial enolase superfamily member 1 Antibody shows brown staining within tumor epithelial cells surrounding glandular spaces. Tissue sections underwent heat-mediated antigen retrieval in EDTA buffer (pH 8.0) and blocking with 10% goat serum. Primary antibody was applied at 2 ug/mL overnight at 4°C, followed by peroxidase-conjugated secondary antibody and DAB detection. Hematoxylin provides the blue nuclear counterstain.

ENOSF1 Antibody by WB in human and rodent samples. Western blot analysis using Mitochondrial enolase superfamily member 1 Antibody detects an immunoreactive band near 50 kDa in human HeLa (lane 1), K562 (lane 2), MCF-7 (lane 3), RT4 (lane 4), rat kidney (lane 5), and mouse kidney (lane 6). The calculated molecular weight is approximately 50 kDa. Reduced lysates containing 30 ug protein per lane were separated by 10% SDS-PAGE and transferred to nitrocellulose. Membranes were blocked with 5% nonfat milk and incubated with primary antibody at 0.5 ug/mL overnight at 4°C. An HRP-conjugated secondary antibody and chemiluminescent substrate were used for detection.

ENOSF1 Antibody by IP in RT4 cells. Immunoprecipitation using Mitochondrial enolase superfamily member 1 Antibody was evaluated by Western blotting. Lane 1 contains RT4 input lysate (30 ug), lane 2 contains the rabbit IgG immunoprecipitation control, and lane 3 contains material precipitated from 500 ug RT4 lysate with 2 ug antibody. A band near 50 kDa is enriched in the specific immunoprecipitate relative to the control, consistent with the expected molecular weight of ENOSF1. Immunoprecipitated proteins were transferred to a membrane, detected with primary antibody at 0.5 ug/mL, and visualized by HRP-based chemiluminescence.

ENOSF1 Antibody by FACS in K562 cells. Flow cytometry using Mitochondrial enolase superfamily member 1 Antibody measures intracellular ENOSF1 staining in fixed, permeabilized K562 cells. The antibody-stained population is shown in blue, with rabbit IgG isotype control in green and unstained control in red. Cells were fixed with 4% paraformaldehyde, permeabilized, and blocked with 10% normal goat serum. Primary antibody was applied at 1 ug per 1×10^6 cells for 30 minutes at 20°C, followed by Fluoro488-conjugated secondary antibody. The experiment does not assess cell-surface binding on live cells.

Description

ENOSF1 Antibody / Mitochondrial enolase superfamily member 1 Antibody detects ENOSF1, a protein with sequence and structural relationships to enzymes of the enolase superfamily. The gene is also known for its connection to thymidylate synthase-related transcript regulation, and alternative transcripts have contributed to historical differences in naming. Members of the enolase superfamily share aspects of protein architecture while catalyzing diverse biochemical reactions. Accordingly, membership in this superfamily does not by itself establish that ENOSF1 performs the same reaction as classical glycolytic enolase.

ENOSF1 has been discussed in the context of pyrimidine metabolism and regulation of thymidylate synthase, the enzyme encoded by TYMS that produces deoxythymidylate required for DNA synthesis. Early studies described transcripts associated with the ENOSF1 locus that can influence TYMS expression. The exact relationships among ENOSF1 transcript forms, protein products, and biochemical activities require careful distinction. Its mitochondrial association has also been described in protein annotations, but mechanistic conclusions should not be drawn solely from predicted localization. The Mitochondrial enolase superfamily member 1 Antibody name refers to this same gene product.

Variation near ENOSF1 and TYMS has been investigated in studies of fluoropyrimidine treatment response because thymidylate synthase is a key target of these drugs. Genetic associations in this region may reflect complex effects on transcript abundance and neighboring gene regulation, rather than a single established ENOSF1 protein function. ENOSF1 therefore occupies an interesting intersection of enzyme-family evolution, RNA regulation, and nucleotide metabolism. NSJ Bioreagents includes ENOSF1 among targets related to metabolic regulation and the molecular control of DNA precursor synthesis. An ENOSF1 Antibody provides a way to investigate the molecular biology associated with this protein.

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Application Notes

For best results, determine the optimal working dilution of the ENOSF1 Antibody / Mitochondrial enolase superfamily member 1 Antibody experimentally.

Immunogen

The ENOSF1 Antibody was generated using e. coli-derived human ENOSF1 recombinant protein (amino acids D26-D430).

Storage

Following reconstitution, the ENOSF1 Antibody can be kept at 4oC for one month. Aliquot for extended storage at -20oC for up to six months, avoiding repeated freezing and thawing.

Alternate Names

ENOSF1 antibody, Mitochondrial enolase superfamily member 1 antibody, enolase superfamily member 1 antibody, EC:4.2.1.68 antibody, L-fuconate dehydratase antibody, rTS antibody, TYMSAS antibody