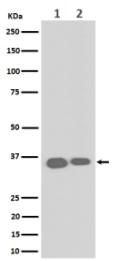
ELOVL5 Antibody / Elongation of very long chain fatty acids protein 5 [clone 30E85] (FY12056)

Catalog No.	Formulation	Size
FY12056	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human, Mouse, Rat
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	30E85
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	Q9NYP7
Applications	Western Blot : 1:500-1:2000 Immunocytochemistry/Immunofluorescence : 1:50-1:200
Limitations	This ELOVL5 antibody is available for research use only.



Western blot analysis of ELOVL5 expression in (1) human HeLa cell lysate; (2) mouse RAW264.7 cell lysate. Predicted molecular weight ~35 kDa and ~38 kDa (two isoforms).

Description

ELOVL5 antibody detects elongation of very long chain fatty acids protein 5, an enzyme involved in lipid biosynthesis.

ELOVL5 belongs to the family of elongases that catalyze the extension of polyunsaturated and saturated fatty acids by adding two-carbon units. This activity is essential for producing long-chain polyunsaturated fatty acids such as arachidonic acid and docosahexaenoic acid, which serve as key building blocks for phospholipids, sphingolipids, and signaling molecules.

Research using ELOVL5 antibody highlights the enzyme's central role in maintaining membrane fluidity, intracellular signaling, and metabolic regulation. ELOVL5 is expressed in liver, adipose tissue, and reproductive organs, with its products contributing to fertility, neural development, and systemic lipid balance. Dysregulation of ELOVL5 has been associated with metabolic diseases including hyperlipidemia, insulin resistance, and nonalcoholic fatty liver disease. Furthermore, altered ELOVL5 activity can impact neurological function, since long-chain polyunsaturated fatty acids are required for synaptic stability and brain development.

Beyond metabolism, ELOVL5 antibody has been applied in cancer biology studies. Tumors often reprogram lipid metabolism to support rapid growth, and overexpression of elongases like ELOVL5 can facilitate proliferation and survival under stress. Inhibiting ELOVL5 has been investigated as a therapeutic approach to limit tumor progression. The enzyme also has links to immune regulation, since polyunsaturated fatty acid metabolites act as precursors to eicosanoids that control inflammation.

Validated antibodies against ELOVL5 are suitable for western blot, immunohistochemistry, and immunofluorescence, enabling researchers to assess tissue-specific expression patterns and subcellular localization. In metabolic studies, these reagents are used to evaluate how nutritional interventions or genetic modifications affect lipid biosynthetic pathways. In neuroscience, they support investigations into how long-chain fatty acid deficiency contributes to neurodevelopmental disorders. Clone-based antibodies provide the specificity needed for reliable results across experiments.

NSJ Bioreagents provides this ELOVL5 antibody for studies in lipid metabolism, cancer, and neurological research, supporting scientists investigating pathways tied to fatty acid elongation.

Application Notes

Optimal dilution of the ELOVL5 antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human ELOVL5 was used as the immunogen for the ELOVL5 antibody.

Storage

Store the ELOVL5 antibody at -20oC.