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ELOVL4. Rabbit Antigen Immunoaffinity Purified Polyclonal

Elongation of very long chain fatty acids protein 4, ELOV4

BACKGROUND

Mutations in elongation of very long-chain fatty acid-4 (ELOVL4) are associated with autosomal dominant Stargardt-like macular degeneration (STGD3), with a five base-pair (5 bp) deletion mutation resulting in the loss of 51 carboxy-terminal amino acids and truncation of the protein. Elovl4 is expressed in the retina and only a limited number of mammalian other tissues, including skin, with unknown function. In a mouse model with the 5-bp deletion in the Elovl4 gene, mice in the heterozygous state (Elovl4(+/del)) demonstrate progressive photoreceptor degeneration. Homozygous mice (Elovl4(del/del)) display scaly, wrinkled skin, have severely compromised epidermal permeability barrier function, and die within a few hours after birth. Lipid analyses of epidermis from Elovl4 (del/del) mice show a decrease in very long-chain fatty acids (VLFAs) in both the ceramide/glucosylceramide and the free fatty-acid fractions. ELOVL4 is required for generating VLFA critical for epidermal barrier function.

ORDERING INFORMATION

CATALOG NUMBER

X2381P

SIZE

10 Miniblots

FORM

Affinity Purified

HOST/CLONE

Rabbit

FORMULATION

Provided as solution in phosphate buffered saline with 0.08% sodium azide

CONCENTRATION

Lot specific, see vial

ISOTYPE

IgG

APPLICATIONS

Western Blot

SPECIES REACTIVITY

Human

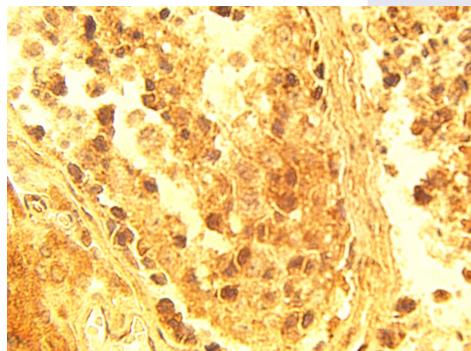
ACCESSION NUMBER

Human Q9GZR5

IMMUNOGEN

Synthetic peptide derived from the human ELOV4 protein

Immunohistochemical staining of normal human testis tissue using ELOV4 antibody (Cat. No. X2381P) at 15 µg/ml.



POSITIVE CONTROL/TISSUE EXPRESSION

Normal human testis. Expressed in the retina and at much lower level in the brain.

COMMENTS

Antibody can be used for Western blotting (1:400 starting dilution) and immunohistochemistry (10-15 µg/ml). Optimal concentration should be evaluated by serial dilutions.

PURIFICATION

Antigen Immunoaffinity Purification

SHIP CONDITIONS

Ship on gel ice, store at -20°C immediately upon arrival

STORAGE CUSTOMER

Product should be stored at -20°C. Aliquot to avoid freeze/thaw cycles

STABILITY

Products are stable for one year from purchase when stored properly

REFERENCES

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- 8: Kajikawa M, et al. Isolation and functional characterization of fatty acid delta5-elongase gene from the liverwort *Marchantia polymorpha* L. *FEBS Lett.* 2006 Jan 9;580(1):149-54. Epub 2005 Dec 6.
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- 11: Edwards A.O., et al; A novel gene for autosomal dominant Stargardt-like macular dystrophy with homology to the SUR4 protein family.; *Invest. Ophthalmol. Vis. Sci.* 42:2652-2663(2001).

PRODUCT SPECIFIC REFERENCES