

## FA2H (G-15): sc-161045

### BACKGROUND

Sphingolipids are a class of lipids derived from sphingosine, an aliphatic amino alcohol, and play an important role in signaling and cell recognition. Ceramide is the fundamental structural unit that is common to all sphingolipids and it consists of a fatty acid chain attached to sphingosine. FA2H (Fatty acid 2-hydroxylase) is a 372 amino acid multi-pass membrane protein that catalyzes the hydroxylation of ceramides at the 2-position of the N-acyl chain. Sphingolipids containing a 2-hydroxy fatty acid are common in the nervous system and epidermal tissue. Localized to the endoplasmic reticulum and microsomes, FA2H is expressed in epidermal keratinocytes, colon and brain. Defects in the gene encoding FA2H are the cause of leukodystrophy dysmyelinating with spastic paraparesis with or without dystonia.

### REFERENCES

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### CHROMOSOMAL LOCATION

Genetic locus: FA2H (human) mapping to 16q23.1; Fa2h (mouse) mapping to 8 E1.

### SOURCE

FA2H (G-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FA2H of human origin.

### PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-161045 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

FA2H (G-15) is recommended for detection of FA2H of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

FA2H (G-15) is also recommended for detection of FA2H in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for FA2H siRNA (h): sc-93418, FA2H siRNA (m): sc-144999, FA2H shRNA Plasmid (h): sc-93418-SH, FA2H shRNA Plasmid (m): sc-144999-SH, FA2H shRNA (h) Lentiviral Particles: sc-93418-V and FA2H shRNA (m) Lentiviral Particles: sc-144999-V.

Molecular Weight of FA2H: 43 kDa.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

### RESEARCH USE

For research use only, not for use in diagnostic procedures.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.