

MGAT1 (E-15): sc-32387

BACKGROUND

Monoacylglycerol O-acyltransferase (MGAT) catalyzes diacylglycerol (a precursor to triacylglycerol) synthesis. MGAT is important in intestinal absorption of dietary fat because resynthesis of triacylglycerol is needed for the assembly of the lipoproteins that transport absorbed fat to tissues. MGAT1 is expressed in stomach, kidney, liver and adipose tissue but is not found in the intestine. On the contrary, MGAT2 is highly expressed in the small intestine as well as in kidney, liver, colon, stomach and white adipose tissue. MGAT 3 is highly homologous to MGAT1 and 2. The expression of MGAT3 is restricted to the gastrointestinal tract, most concentrated in the ileum.

REFERENCES

1. Bhat, B.G., et al. 1993. Solubilization and partial purification of neonatally expressed rat hepatic microsomal monoacylglycerol acyltransferase. Arch. Biochem. Biophys. 300: 663-669.
2. Lehner, R., et al. 1993. Stereospecificity of monoacylglycerol and diacylglycerol acyltransferases from rat intestine as determined by chiral phase high-performance liquid chromatography. Lipids 28: 29-34.
3. Cases, S., et al. 2001. Cloning of DGAT2, a second mammalian diacylglycerol acyltransferase, and related family members. J. Biol. Chem. 276: 38870-38876.

CHROMOSOMAL LOCATION

Genetic locus: Mogat1 (mouse) mapping to 1 C4.

SOURCE

MGAT1 (E-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MGAT1 of mouse 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-32387 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MGAT1 (E-15) is recommended for detection of MGAT1 of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MGAT1 siRNA (m): sc-44872, MGAT1 shRNA Plasmid (m): sc-44872-SH and MGAT1 shRNA (m) Lentiviral Particles: sc-44872-V.

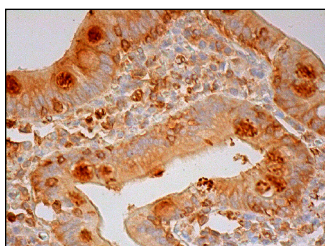
Molecular Weight of MGAT1: 33 kDa.

Positive Controls: mouse small intestine tissue extract: sc-364252.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



MGAT1 (E-15): sc-32387. Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing cytoplasmic staining of glandular cells.

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 or our catalog for detailed protocols and support products.

MONOS
Satisfaction
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Try **MGAT1 (H-6): sc-376079**, our highly recommended monoclonal alternative to MGAT1 (E-15).