Human DGAT2 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG

Catalog Number: AF7256

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human DGAT2 in direct ELISAs. In direct ELISAs, approximately 7% cross-reactivity with recombinant human DGAT2-L6 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human DGAT2 Arg268-Phe377 Accession # Q96PD7
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

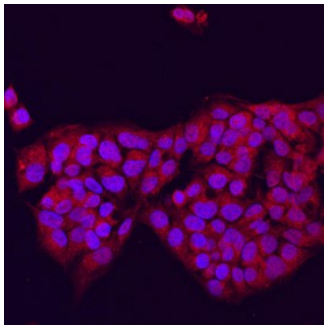
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Immunocytochemistry	5-15 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below

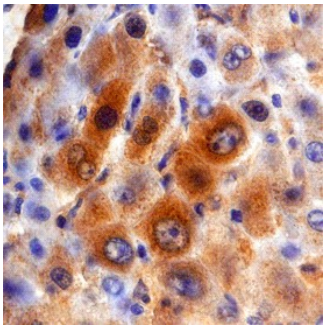
DATA

Immunocytochemistry



DGAT2 in HepG2 Human Cell Line. DGAT2 was detected in immersion fixed HepG2 human hepatocellular carcinoma cell line using Sheep Anti-Human DGAT2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7256) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red; Catalog # NL010) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

Immunohistochemistry



DGAT2 in Human Liver. DGAT2 was detected in immersion fixed paraffin-embedded sections of human liver using Sheep Anti-Human DGAT2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7256) at 3 µg/mL overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm of hepatocytes. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

DGAT2 (Diacylglycerol O-acyltransferase 2; also DGAT2α) is a 45-50 kDa, insulin-regulated member of the DGAT2 family of enzymes. Although DGAT1 also exists, it is related to DGAT2 only by function; DGAT1 and DGAT2 are members of structurally unrelated gene families. DGAT2 catalyzes the formation of triglyceride (TG) from sn-1, 2-DG and a variety of acyl-CoAs. It is found in sebaceous gland cells, adipocytes, and hepatocytes, and appears to synthesize TGs for incorporation into VLDL particles. Human DGAT2 is a 388 amino acid (aa) multipass ER protein. It contains a 69 aa N-terminal cytoplasmic region, a short luminal sequence (aa 89-92) and a long C-terminal cytoplasmic domain that contains acyl transferase activity (aa 113-388). DGAT2 does homomultimerize, forming 680 kDa complexes. There is one splice variant that contains a deletion of aa 41-83. Over aa 268-377, human DGAT2 shares 95% aa sequence identity with mouse DGAT2.

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