

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	<i>E. coli</i> -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 as a 0.2 µm filtered solution in PBS.

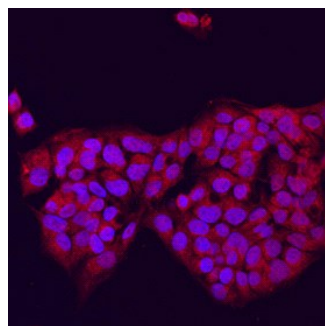
APPLICATIONS

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

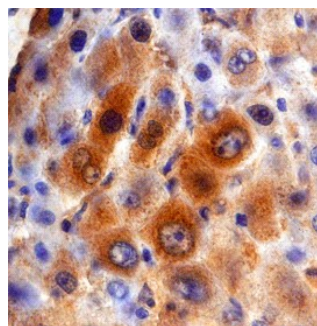
DATA

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. <ul style="list-style-type: none"> ● 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.