Product Datasheet

DGAT1 Antibody
NB110-41487SS

Unit Size: 0.025 ml

Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

Publications: 5

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NB110-41487SS

DGAT1 Antibody

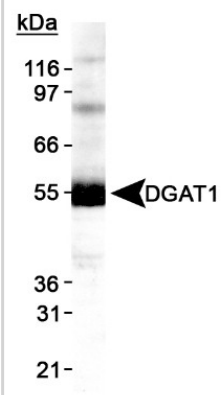
Product Information	
Unit Size	0.025 ml
Concentration	1.0 mg/ml
Storage	Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.05% Sodium Azide
Purity	Immunogen affinity purified
Buffer	PBS
Target Molecular Weight	55 kDa

Product Description	
Host	Rabbit
Gene ID	8694
Gene Symbol	DGAT1
Species	Human, Mouse, Rat, Bovine, Zebrafish
Species Reactivity	Human, mouse, bovine, Zebrafish, and rat. Predicted to react with primate, sheep, and goat based on 100% sequence homology.
Immunogen	A synthetic peptide made to an internal region (within residues 200-300) of human DGAT1. [Swiss-Prot# O75907]

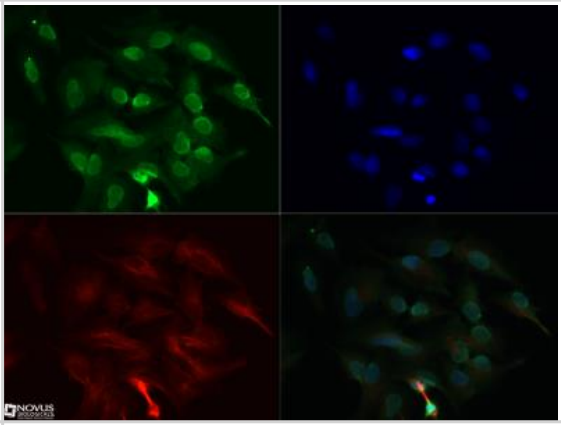
Product Application Details	
Applications	Western Blot, Immunocytochemistry/Immunofluorescence
Recommended Dilutions	Immunocytochemistry/Immunofluorescence 1:40-1:100, Western Blot 2 ug/ml
Application Notes	This DGAT1 antibody is useful for Western Blot analysis and Immunocytochemistry/Immunofluorescence. In Western Blot, a band is seen at ~55 kDa. In ICC/IF, staining was observed in the endoplasmic reticulum and cytoplasm of HepG2 cells. This antibody is not applicable for IHC-paraffin embedded sections.

Images

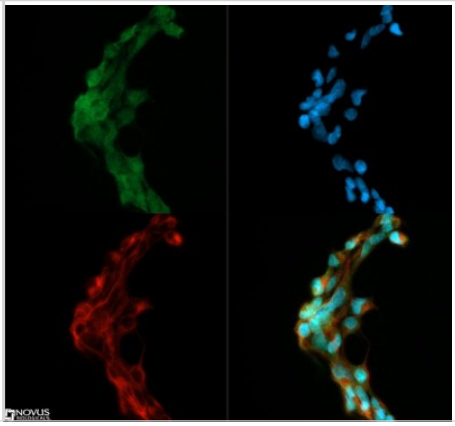
Western Blot: DGAT1 Antibody [NB110-41487] - Detection of DGAT1 in HepG2 lysate.



Immunocytochemistry/Immunofluorescence: DGAT1 Antibody [NB110-41487] - DGAT1 antibody (1:100) was tested in HepG2 cells with Dylight 488 (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and Dylight 550 (red). Image objective 40x.



Immunocytochemistry/Immunofluorescence: DGAT1 Antibody [NB110-41487] - DGAT1 antibody was tested in Hek293 cells with Dylight 488 (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and Dylight 550 (red).



Publications

Larsen S, Danielsen JH, Sondergard SD et al. The effect of high-intensity training on mitochondrial fat oxidation in skeletal muscle and subcutaneous adipose tissue. Scand J Med Sci Sports. 2014 May 21 [PMID: 24845952] (WB, Human)

Cornford A, Hinko A, Nelson R et al. Rapid development of systemic insulin resistance with overeating is not accompanied by robust changes in skeletal muscle glucose and lipid metabolism. Appl Physiol Nutr Metab. 2013 [PMID: 23668758]

Haas JT, Winter HS, Lim E et al. DGAT1 mutation is linked to a congenital diarrheal disorder J Clin Invest 2012 Dec 3 [PMID: 23114594] (WB, Mouse)

Li M, Paran C, Wolins NE, Horowitz JF. High muscle lipid content in obesity is not due to enhanced activation of key triglyceride esterification enzymes or to the suppression of lipolytic proteins. Am J Physiol Endocrinol Metab. 2011 Feb 1. [PMID: 21285405]

Newsom SA, Schenk S, Li M et al. High fatty acid availability after exercise alters the regulation of muscle lipid metabolism. Metabolism. 2010 Sep 24. [PMID: 20870251] (WB, Human)

Procedures

Western Blot protocol for DGAT1 Antibody (NB110-41487)
Western Blot Protocol

1. Perform SDS-PAGE on samples to be analyzed, loading 40 ug of total protein per lane.
2. Transfer proteins to membrane according to the instructions provided by the manufacturer of the membrane and transfer apparatus.
3. Stain according to standard Ponceau S procedure (or similar product) to assess transfer success, and mark molecular weight standards where appropriate.
4. Rinse the blot.
5. Block the membrane using standard blocking buffer for at least 1 hour.
6. Wash the membrane in wash buffer three times for 10 minutes each.
7. Dilute primary antibody in blocking buffer and incubate 1 hour at room temperature.
8. Wash the membrane in wash buffer three times for 10 minutes each.
9. Apply the diluted HRP conjugated secondary antibody in blocking buffer (as per manufacturers instructions) and incubate 1 hour at room temperature.
10. Wash the blot in wash buffer three times for 10 minutes each (this step can be repeated as required to reduce background).
11. Apply the detection reagent of choice in accordance with the manufacturers instructions.
Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%.

*The above information is only intended as a guide. The researcher should determine what protocol best meets their needs. Please follow safe laboratory procedures.

Immunocytochemistry/Immunofluorescence Protocol for DGAT1 Antibody (NB110-41487)
Immunocytochemistry Protocol

Culture cells to appropriate density in 35 mm culture dishes or 6-well plates.

1. Remove culture medium and add 10% formalin to the dish. Fix at room temperature for 30 minutes.
2. Remove the formalin and add ice cold methanol. Incubate for 5-10 minutes.
3. Remove methanol and add washing solution (i.e. PBS). Be sure to not let the specimen dry out. Wash three times for 10 minutes.
4. To block nonspecific antibody binding incubate in 10% normal goat serum from 1 hour to overnight at room temperature.
5. Add primary antibody at appropriate dilution and incubate at room temperature from 2 hours to overnight at room temperature.
6. Remove primary antibody and replace with washing solution. Wash three times for 10 minutes.
7. Add secondary antibody at appropriate dilution. Incubate for 1 hour at room temperature.
8. Remove antibody and replace with wash solution, then wash for 10 minutes. Add Hoechst 33258 to wash solution at 1:25,0000 and incubate for 10 minutes. Wash a third time for 10 minutes.
9. Cells can be viewed directly after washing. The plates can also be stored in PBS containing Azide covered in Parafilm (TM). Cells can also be cover-slipped using Fluoromount, with appropriate sealing.

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Limitations
This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

For more information on our guarantee, please visit www.novusbio.com/guarantee.