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Goat Anti-CGI58 / ABHD5 Antibody

Peptide-affinity purified goat antibody
Catalog # AF1233a

Specification

Goat Anti-CGI58 / ABHD5 Antibody - Product Information

Application	**WB, IHC**
Primary Accession	Q8WTS1
Other Accession	NP_057090, 51099, 67469 (mouse), 316122 (rat)
Reactivity	**Human, Mouse, Bovine**
Predicted	**Rat, Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**39096**

Goat Anti-CGI58 / ABHD5 Antibody - Additional Information

Gene ID 51099

Other Names
1-acylglycerol-3-phosphate O-acyltransferase ABHD5, 2.3.1.51, Abhydrolase domain-containing protein 5, Lipid droplet-binding protein CGI-58, ABHD5, NCIE2

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-CGI58 / ABHD5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-CGI58 / ABHD5 Antibody - Protein Information

Name ABHD5 (HGNC:21396)

Synonyms NCIE2

Function
Coenzyme A-dependent lysophosphatidic acid acyltransferase that catalyzes the transfer of an acyl group on a lysophosphatidic acid (PubMed:<a

href="http://www.uniprot.org/citations/18606822" target="_blank">18606822). Functions preferentially with 1-oleoyl- lysophosphatidic acid followed by 1-palmitoyl-lysophosphatidic acid, 1-stearoyl-lysophosphatidic acid and 1-arachidonoyl-lysophosphatidic acid as lipid acceptor. Functions preferentially with arachidonoyl-CoA followed by oleoyl-CoA as acyl group donors (By similarity). Functions in phosphatidic acid biosynthesis (PubMed:18606822). May regulate the cellular storage of triacylglycerol through activation of the phospholipase PNPLA2 (PubMed:16679289). Involved in keratinocyte differentiation (PubMed:18832586). Regulates lipid droplet fusion (By similarity).

Cellular Location
Cytoplasm. Lipid droplet {ECO:0000250|UniProtKB:Q9DBL9}. Cytoplasm, cytosol {ECO:0000250|UniProtKB:Q9DBL9}. Note=Colocalized with PLIN and ADRP on the surface of lipid droplets. The localization is dependent upon the metabolic status of the adipocytes and the activity of PKA (By similarity).

Tissue Location
Widely expressed in various tissues, including lymphocytes, liver, skeletal muscle and brain. Expressed by upper epidermal layers and dermal fibroblasts in skin, hepatocytes and neurons (at protein level).

Goat Anti-CGI58 / ABHD5 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-CGI58 / ABHD5 Antibody - Images

AF1233a (0.2 µg/ml) staining of NIH3T3 lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

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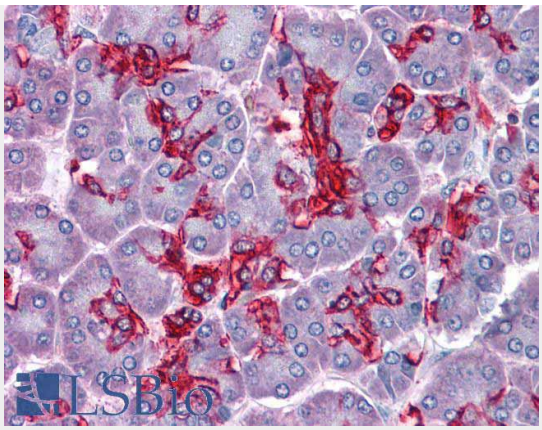
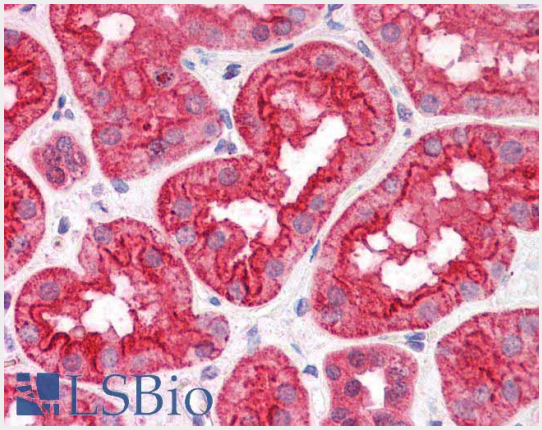


AF1233a (3.75 µg/ml) staining of paraffin embedded Human Pancreas. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.



AF1233a (3.75 µg/ml) staining of paraffin embedded Human Kidney. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.

Goat Anti-CGI58 / ABHD5 Antibody - Background

The protein encoded by this gene belongs to a large family of proteins defined by an alpha/beta hydrolase fold, and contains three sequence motifs that correspond to a catalytic triad found in the esterase/lipase/thioesterase subfamily. It differs from other members of this subfamily in that its putative catalytic triad contains an asparagine instead of the serine residue. Mutations in this gene have been associated with Chanarin-Dorfman syndrome, a triglyceride storage disease with impaired long-chain fatty acid oxidation.

Goat Anti-CGI58 / ABHD5 Antibody - References

High frequency of ETFDH c.250G>A mutation in Taiwanese patients with late-onset lipid storage myopathy. Lan MY, et al. Clin Genet, 2010 Mar 29. PMID 20370797.
Neutral lipid storage disease: genetic disorders caused by mutations in adipose triglyceride lipase/PNPLA2 or CGI-58/ABHD5. Schweiger M, et al. Am J Physiol Endocrinol Metab, 2009 Aug. PMID 19401457.
Chanarin-Dorfman syndrome: deficiency in CGI-58, a lipid droplet-bound coactivator of lipase. Yamaguchi T, et al. Biochim Biophys Acta, 2009 Jun. PMID 19061969.
CGI-58 is an alpha/beta-hydrolase within lipid transporting lamellar granules of differentiated keratinocytes. Akiyama M, et al. Am J Pathol, 2008 Nov. PMID 18832586.
CGI-58, the causative gene for Chanarin-Dorfman syndrome, mediates acylation of lysophosphatidic acid. Ghosh AK, et al. J Biol Chem, 2008 Sep 5. PMID 18606822.