abcam

Product datasheet

Anti-Adipose Triglyceride Lipase antibody [EPR3444(2)] ab109251

Recombinant RabMAb

2 Abreviews 42 References 5 Images

Overview

Product name	Anti-Adipose Triglyceride Lipase antibody [EPR3444(2)]
Description	Rabbit monoclonal [EPR3444(2)] to Adipose Triglyceride Lipase
Host species	Rabbit
Tested applications	**Suitable for:** WB **Unsuitable for:** Flow Cyt,ICC/IF or IHC-P
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: 3T3-L1, A431 and A673 cell lysates, human heart, skeletal muscle and adipose tissue lysates. Mouse and rat heart tissue lysates.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 59% PBS, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal

Clone number	EPR3444(2)
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab109251 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

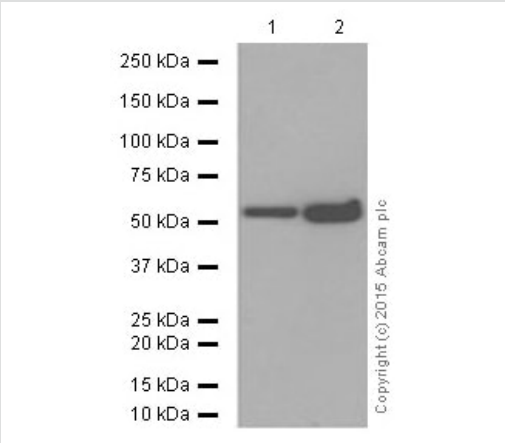
Application	Abreviews	Notes
WB	★★★★★ **(2)**	1/1000 - 1/10000.

Application notes Is unsuitable for Flow Cyt,ICC/IF or IHC-P.

Target

Function	Catalyzes the initial step in triglyceride hydrolysis in adipocyte and non-adipocyte lipid droplets. Also has acylglycerol transacylase activity. May act coordinately with LIPE/HLS within the lipolytic cascade. Regulates adiposome size and may be involved in the degradation of adiposomes. May play an important role in energy homeostasis. May play a role in the response of the organism to starvation, enhancing hydrolysis of triglycerides and providing free fatty acids to other tissues to be oxidized in situations of energy depletion.
Tissue specificity	Highest expression in adipose tissue. Also detected in heart, skeletal muscle, and portions of the gastrointestinal tract. Detected in normal retina and retinoblastoma cells. Detected in retinal pigment epithelium and, at lower intensity, in the inner segments of photoreceptors and in the ganglion cell layer of the neural retina (at protein level).
Pathway	Glycerolipid metabolism; triacylglycerol degradation.
Involvement in disease	Note=Genetic variations in PNPLA2 may be associated with risk of diabetes mellitus type 2. Defects in PNPLA2 are the cause of neutral lipid storage disease with myopathy (NLSDM) [MIM:610717]; also known as neutral lipid storage disease without ichthyosis. NSLDM is a neutral lipid storage disorder (NLSD) with myopathy but without ichthyosis. NLSDs are characterized by the presence of triglyceride-containing cytoplasmic droplets in leukocytes and in other tissues, including bone marrow, skin, and muscle. Individuals with NLSDM did not show obesity, in spite of a defect in triglyceride degradation in fibroblasts and in marked triglyceride storage in liver, muscles, and other visceral cells.
Sequence similarities	Contains 1 patatin domain.
Developmental stage	Induced during differentiation of primary preadipocytes to adipocytes. Expression increased from fetal to adult in retinal pigment epithelium.
Cellular localization	Lipid droplet. Cell membrane.

Images



Western blot - Anti-Adipose Triglyceride Lipase antibody [EPR3444(2)] (ab109251)

All lanes : Anti-Adipose Triglyceride Lipase antibody [EPR3444(2)] (ab109251) at 1/5000 dilution (purified)

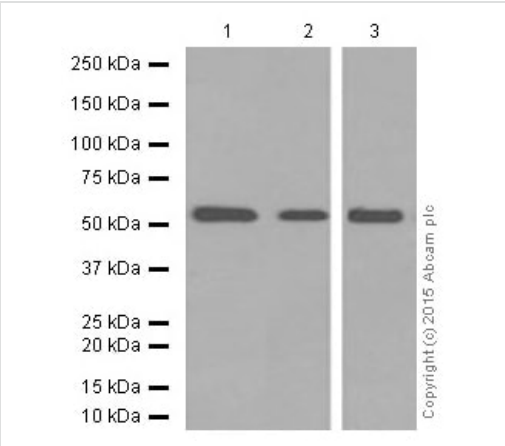
Lane 1 : Mouse heart tissue lysate
Lane 2 : Rat heart tissue lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : HRP-conjugated goat anti-rabbit IgG (specific to the non-reduced form of IgG) at 1/1000 dilution

Observed band size: 54 kDa

Blocking and dilution buffer: 5% NFDM /TBST.



Western blot - Anti-Adipose Triglyceride Lipase antibody [EPR3444(2)] (ab109251)

All lanes : Anti-Adipose Triglyceride Lipase antibody [EPR3444(2)] (ab109251) at 1/1000 dilution (purified)

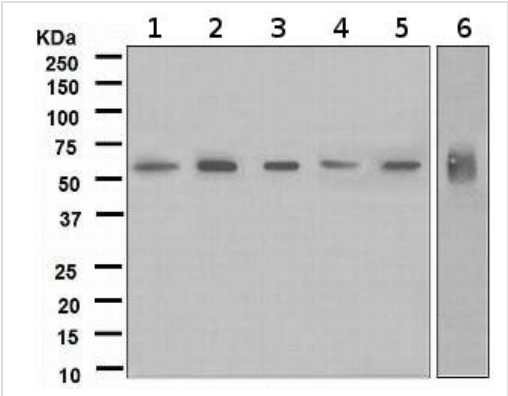
Lane 1 : Human heart tissue lysate
Lane 2 : A431 whole cell lysate
Lane 3 : A673 whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : HRP-conjugated goat anti-rabbit IgG (specific to the non-reduced form of IgG) at 1/1000 dilution

Observed band size: 54 kDa

Blocking and dilution buffer: 5% NFDM /TBST.



Western blot - Anti-Adipose Triglyceride Lipase antibody [EPR3444(2)] (ab109251)

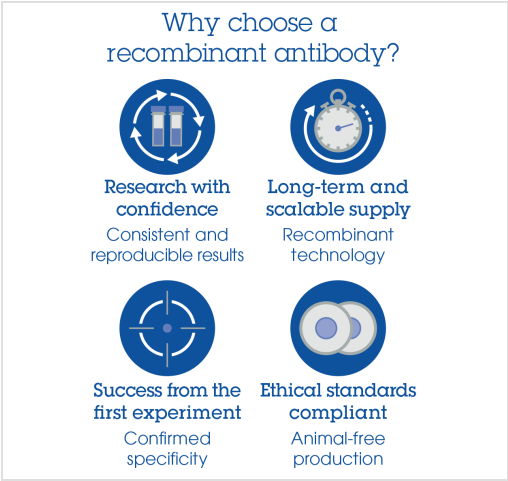
All lanes : Anti-Adipose Triglyceride Lipase antibody [EPR3444(2)] (ab109251) at 1/1000 dilution (unpurified)

Lane 1 : 3T3-L1 lysate
Lane 2 : A431 lysate
Lane 3 : A673 lysate
Lane 4 : Human heart tissue lysate
Lane 5 : Human skeletal muscle tissue lysate
Lane 6 : Human adipose tissue lysate

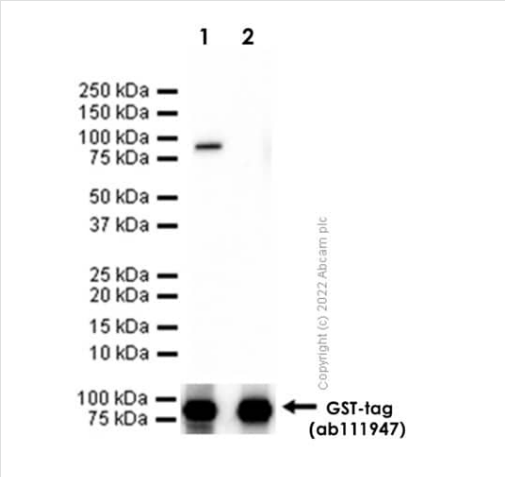
Lysates/proteins at 10 µg per lane.

Secondary
All lanes : HRP-conjugated goat anti-rabbit IgG at 1/2000 dilution

Observed band size: 54 kDa



Anti-Adipose Triglyceride Lipase antibody [EPR3444(2)] (ab109251)



Western blot - Anti-Adipose Triglyceride Lipase antibody [EPR3444(2)] (ab109251)

All lanes : Anti-Adipose Triglyceride Lipase antibody [EPR3444(2)] (ab109251) at 1/1000 dilution

Lane 1 : GST tagged Recombinant Human Adipose Triglyceride Lipase (PNPLA2) protein (Full length, 82 KDa)
Lane 2 : GST tagged Recombinant Human KLF4 protein (Full length, 81 KDa)

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

Performed under reducing conditions.

Observed band size: 82 kDa

Exposure time: 5 seconds

Blocking buffer and concentration: 5% NFDM/TBST

Diluting buffer and concentration: 5% NFDM/TBST

Gel type: 4-20% gradient gel (SDS-PAGE)

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors