abcam

Product datasheet

Anti-Adiponectin antibody ab62551

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Overview

Product name Anti-Adiponectin antibody

Description Rabbit polyclonal to Adiponectin

Host species Rabbit

Tested applications Suitable for: WB, IHC-P

Species reactivity Reacts with: Rat

Immunogen A 15 amino acid peptide from near the amino terminus of human Adiponectin.

Positive control Rat brain cell lysate. Rat brain tissue.

General notes

The Life Science industry has been in the grips of a reproducibility crisis for a number of years.

Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

Properties

Form Liquid

Storage instructions Shipped at 4°C. Store at +4°C.

Storage buffer pH: 7.2

Preservative: 0.02% Sodium azide

Constituent: PBS

Purity Immunogen affinity purified

Clonality Polyclonal

Isotype IgG

Applications

The Abpromise guarantee Our <u>Abpromise guarantee</u> covers the use of ab62551 in the following tested applications.

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

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Application	Abreviews	Notes
WB	★★★★☆ (1)	Use a concentration of 1 µg/ml. Detects a band of approximately 32 kDa (predicted molecular weight: 26 kDa).
IHC-P		Use a concentration of 1 µg/ml.

Target

Function

Important adipokine involved in the control of fat metabolism and insulin sensitivity, with direct anti-diabetic, anti-atherogenic and anti-inflammatory activities. Stimulates AMPK phosphorylation and activation in the liver and the skeletal muscle, enhancing glucose utilization and fatty-acid combustion. Antagonizes TNF-alpha by negatively regulating its expression in various tissues such as liver and macrophages, and also by counteracting its effects. Inhibits endothelial NF-kappa-B signaling through a cAMP-dependent pathway. May play a role in cell growth, angiogenesis and tissue remodeling by binding and sequestering various growth factors with distinct binding affinities, depending on the type of complex, LMW, MMW or HMW.

Tissue specificity

Synthesized exclusively by adipocytes and secreted into plasma.

Involvement in disease

 ${\sf Defects\ in\ ADIPOQ\ are\ the\ cause\ of\ adiponectin\ deficiency\ (ADPND)\ [MIM:612556].\ ADPND}$

results in very low concentrations of plasma adiponectin.

Genetic variations in ADIPOQ are associated with non-insulin-dependent diabetes mellitus (NIDDM) [MIM:125853]; also known as diabetes mellitus type 2. NIDDM is characterized by an autosomal dominant mode of inheritance, onset during adulthood and insulin resistance.

Sequence similarities

Contains 1 C1q domain.

Contains 1 collagen-like domain.

Domain

The C1q domain is commonly called the globular domain.

Post-translational modifications

Hydroxylated Lys-33 was not identified in PubMed:16497731, probably due to poor

representation of the N-terminal peptide in mass fingerprinting.

HMW complexes are more extensively glycosylated than smaller oligomers. Hydroxylation and glycosylation of the lysine residues within the collagene-like domain of adiponectin seem to be critically involved in regulating the formation and/or secretion of HMW complexes and consequently contribute to the insulin-sensitizing activity of adiponectin in hepatocytes.

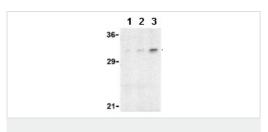
O-glycosylated. Not N-glycosylated. O-linked glycans on hydroxylysines consist of Glc-Gal disaccharides bound to the oxygen atom of post-translationally added hydroxyl groups. Sialylated to varying degrees depending on tissue. Thr-22 appears to be the major site of sialylation. Higher sialylation found in SGBS adipocytes than in HEK fibroblasts. Sialylation is not required neither for heterodimerization nor for secretion. Not sialylated on the glycosylated hydroxylysines.

Desialylated forms are rapidly cleared from the circulation.

Cellular localization

Secreted.

Images



Western blot - Anti-Adiponectin antibody (ab62551)

Lane 1: Anti-Adiponectin antibody (ab62551) at 1 µg/ml

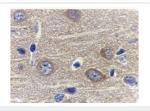
Lane 2: Anti-Adiponectin antibody (ab62551) at 2 µg/ml

Lane 3: Anti-Adiponectin antibody (ab62551) at 4 µg/ml

All lanes: Rat brain cell lysate

Lysates/proteins at 15 µg per lane.

Predicted band size: 26 kDa **Observed band size:** 32 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Adiponectin antibody (ab62551)

ab62551, at $1\mu g/ml$, staining Adiponectin in rat brain tissue by immunohistochemistry using paraffin-embedded tissue.

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