Product datasheet

Anti-Adiponectin antibody ab62551

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: Mouse, Rat, Human
Immunogen: A 15 amino acid peptide from near the amino terminus of human Adiponectin.
Positive control: Rat brain cell lysate. Rat brain tissue.

Properties

Form: Liquid
Storage instructions: Shipped at 4°C. Store at +4°C.
Storage buffer: Preservative: 0.02% Sodium azide
Constituent: PBS
Purity: Immunogen affinity purified
Clonality: Polyclonal
Isotype: IgG

Applications

Our Abpromise guarantee 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.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>WB</td>
<td>★★★★★☆</td>
<td>Use a concentration of 1 µg/ml. Detects a band of approximately 32 kDa (predicted molecular weight: 26 kDa).</td>
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<tr>
<td>IHC-P</td>
<td></td>
<td>Use a concentration of 1 µg/ml.</td>
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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

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 collagen-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
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

ab62551, at 1 µg/ml, staining Adiponectin in rat brain tissue by immunohistochemistry using paraffin-embedded tissue.

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