# Anti-Adiponectin antibody [EPR17019] ab181281

## Overview

<table>
<thead>
<tr>
<th><strong>Product name</strong></th>
<th>Anti-Adiponectin antibody [EPR17019]</th>
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<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Rabbit monoclonal [EPR17019] to Adiponectin</td>
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<td><strong>Host species</strong></td>
<td>Rabbit</td>
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<tr>
<td><strong>Tested applications</strong></td>
<td>Suitable for: IHC-P, WB, ICC/IF, Flow Cyt</td>
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<td><strong>Species reactivity</strong></td>
<td>Reacts with: Mouse, Rat</td>
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<td><strong>Immunogen</strong></td>
<td>Recombinant fragment within Mouse Adiponectin aa 1 to the C-terminus. The exact sequence is proprietary. Database link: Q60994</td>
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<td><strong>Positive control</strong></td>
<td>WB: Mouse plasma, serum, placenta, white adipose, kidney and liver lysates. IHC-P: Mouse and rat adipose tissues. ICC/IF: 3T3-L1 cells. Flow Cyt: 3T3-L1 cells.</td>
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<tr>
<td><strong>General notes</strong></td>
<td>Our RabMab® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMab® patents. This product is a recombinant rabbit monoclonal antibody.</td>
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## Properties

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<tr>
<th><strong>Form</strong></th>
<th>Liquid</th>
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<tbody>
<tr>
<td><strong>Storage instructions</strong></td>
<td>Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.</td>
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</table>
| **Storage buffer** | Preservative: 0.01% Sodium azide  
Constituents: PBS, 0.05% BSA, 40% Glycerol |
| **Purity**       | Protein A purified |
| **Clonality**    | Monoclonal |
| **Clone number** | EPR17019 |
| **Isotype**      | IgG |

## Applications
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.

Synthesized exclusively by adipocytes and secreted into plasma.

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.

Contains 1 C1q domain.
Contains 1 collagen-like domain.

The C1q domain is commonly called the globular domain.

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 hydroxy 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.

Secreted.

Our Abpromise guarantee covers the use of ab181281 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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<tr>
<th>Application</th>
<th>Abviews</th>
<th>Notes</th>
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<tr>
<td>IHC-P</td>
<td>1/4000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.</td>
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<tr>
<td>WB</td>
<td>1/1000. Detects a band of approximately 26 kDa (predicted molecular weight: 26 kDa). <strong>We don’t recommend WB for rat species because we observed an extra band around 24 kDa in addition to adiponectin, in rat plasma and rat serum lysates.</strong></td>
<td></td>
</tr>
<tr>
<td>ICC/IF</td>
<td>1/1000.</td>
<td></td>
</tr>
<tr>
<td>Flow Cyt</td>
<td>1/50.</td>
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Western blot - Anti-Adiponectin antibody [EPR17019] (ab181281)

All lanes: Anti-Adiponectin antibody [EPR17019] (ab181281) at 1/1000 dilution

Lane 1: Mouse plasma lysate
Lane 2: Mouse serum lysate
Lane 3: Mouse placenta lysate
Lane 4: Mouse white adipose lysate
Lane 5: Mouse kidney lysate
Lane 6: Mouse liver lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Developed using the ECL technique.

Predicted band size: 26 kDa
Observed band size: 26 kDa

Exposure times: Lanes 1-2,4-5: 1 second; Lane 3: 3 minutes; Lane 6: 3 seconds.

Blocking/Dilution buffer: 5% NFDM/TBST.
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized 3T3-L1 (mouse embryonic fibroblast cell line) cells labeling Adiponectin with ab181281 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic staining on 3T3-L1 cell line.

The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (ab195889) (red) at 1/200 dilution.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution.

Immunohistochemical analysis of paraffin-embedded mouse adipose tissue labeling Adiponectin with ab181281 at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use. Cytoplasmic staining on mouse adipocytes (PMID: 25676879).

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ready to use.

Flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol permeabilized 3T3-L1 (mouse embryonic fibroblast cell line) cell line labeling Adiponectin with ab181281 at 1/50 (red) compared with a Rabbit IgG, monoclonal [EPR25A] - Isotype Control (ab172730) (black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) at 1/2000 dilution was used as the secondary antibody.
Immunohistochemical analysis of paraffin-embedded rat adipose tissue labeling Adiponectin with ab181281 at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use. Cytoplasmic staining on rat adipocytes (PMID: 25676879). Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ready to use.

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