

## Adiponectin (ANT0013R) Rabbit mAb

CatalogNo: ANT8185 **Recombinant R**

Formulation: PBS,50%glycerol,0.05%Proclin 300,0.05%BSA  
Quantity : 100 ug/vial

### Host Species

- Rabbit
- Human,Mouse,Rat,

### Reactivity

- WB,IHC,IF,IP,ELISA

### Applications

### MW

- 26kD (Calculated)
- 30kD (Observed)

### Isotype

- IgG,Kappa

## Recommended Dilution Ratios

IHC 1:1000-1:4000 WB 1:1000-1:5000 IF 1:200-1:1000 ELISA 1:5000-1:20000 IP 1:50-1:200,

## Storage

**Storage\*** -15°C to -25°C/1 year(Do not lower than -25°C)

## Basic Information

**Clonality** Monoclonal

**Clone Number** ANT0013R

## Immunogen Information Specificity

Endogenous

## Target Information

**Gene name** ADIPOQ

**Protein Name** Adiponectin

Organism	Gene ID	UniProt ID
Human	<a href="#">9370</a> ;	<a href="#">Q15848</a> ;
Mouse	<a href="#">11450</a> ;	<a href="#">Q60994</a> ;

## Cellular Localization

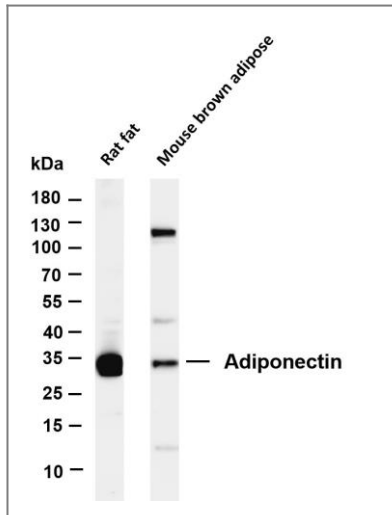
Secreted

**Tissue specificity** Synthesized exclusively by adipocytes and secreted into plasma.

## Function

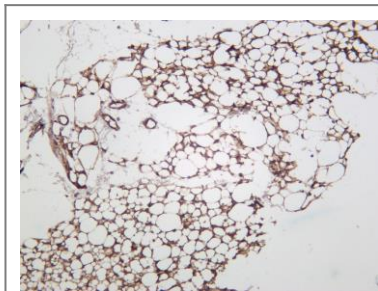
Disease:Defects in ADIPOQ are the cause of adiponectin deficiency (ADPND) [MIM:612556]. ADPND results in very low concentrations of plasma adiponectin.,Disease:Genetic variations in ADIPOQ are associated with non-insulin-dependent diabetes mellitus (NIDDM) [MIM:125853]; also known as diabetes mellitus type 2. NIDDM is characterized by an autosomal dominant mode of inheritance, onset during adulthood and insulin resistance.,Domain:The C1q domain is commonly called the globular domain.,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 cAMPdependent 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.,miscellaneous:HMW-complex blood contents are higher in females than in males, are increased in males by castration and decreased again upon subsequent testosterone treatment, which blocks HMW-complex secretion (By similarity). In type 2 diabetic patients, both the ratios of HMW to total adiponectin and the degree of adiponectin glycosylation are significantly decreased as compared with healthy controls.,miscellaneous:Variants Arg-84 and Ser-90 show impaired formation of HMW complexes whereas variants Cys-112 and Thr-164 show impaired secretion of adiponectin in any form.,online information:Adiponectin entry,pharmaceutical:Adiponectin might be used in the treatment of diabetes type 2 and insulin resistance.,polymorphism:Genetic variations in ADIPOQ influence the variance in adiponectin serum levels and define the adiponectin serum levels quantitative trait locus 1 (ADIPQTL1) [MIM:612556].,ANTM: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.,PTM:Hydroxylated Lys-33 was not identified in PubMed:16497731, probably due to poor representation of the N-terminal peptide in mass fingerprinting.,PTM:Not Nglycosylated.,PTM:O-linked glycans consist of Glc-Gal disaccharides bound to the oxygen atom of post-translationally added hydroxyl groups.,similarity:Contains 1 C1q domain.,similarity:Contains 1 collagen-like domain.,subunit:Homomultimer. Forms trimers, hexamers and 12- to 18-mers. The trimers (low molecular weight complexes / LMW) are assembled via non-covalent interactions of the collagen-like domains in a triple helix and hydrophobic interactions within the globular C1q domain. Several trimers can associate to form disulfide-linked hexamers (middle molecular weight complexes / MMW) and larger complexes (higher molecular weight / HMW). The HMW-complex assembly may rely additionally on lysine hydroxylation and glycosylation. LMW, MMW and HMW complexes bind to HBEGF, MMW and HMW complexes bind to PDGFB, and HMW complex binds to FGF2.,tissue specificity:Synthesized exclusively by adipocytes and secreted into plasma.,

## Validation Data

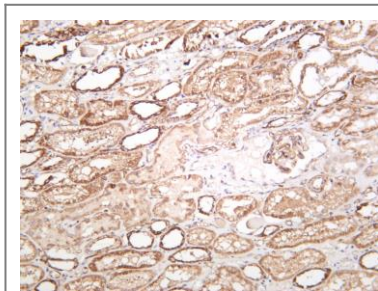


Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-Adiponectin (ANT0013R) antibody. The HRPconjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: Rat fat Lane 2: Mouse brown adipose Predicted band size: 26kDa Observed band size: 30kDa

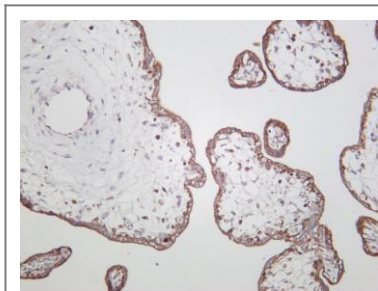
Rat adipose was stained with anti-Adiponectin (ANT0013R) rabbit antibody



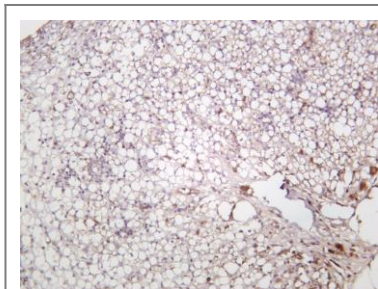
Human kidney was stained with anti-Adiponectin (ANT0013R) rabbit antibody



Human placenta was stained with anti-Adiponectin (ANT0013R) rabbit antibody



Mouse adipose was stained with anti-Adiponectin (ANT0013R) rabbit antibody



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