Product Name: Adiponectin Rabbit Polyclonal Antibody
Catalog #: APRab06635

Summary

Production Name	Adiponectin Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB
Reactivity	Human,Rat,Mouse

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	ADIPOQ
Alternative Names	ADIPOQ; ACDC; ACRP30; APM1; GBP28; Adiponectin; 30 kDa adipocyte complement-related protein; Adipocyte complement-related 30 kDa protein; ACRP30; Adipocyte; C1q and collagen domain-containing protein; Adipose most abundant gene transcript 1
Gene ID	9370.0
SwissProt ID	Q15848.Synthesized peptide derived from Adiponectin . at AA range: 10-90

Application

Dilution Ratio	WB 1:500-1:2000. ELISA: 1:5000.
Molecular Weight	32kD

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Background

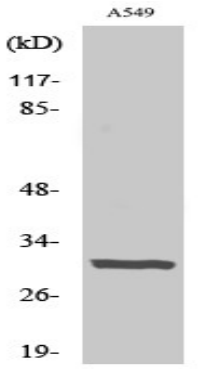
adiponectin, C1Q and collagen domain containing(ADIPOQ) Homo sapiens This gene is expressed in adipose tissue exclusively. It encodes a protein with similarity to collagens X and VIII and complement factor C1q. The encoded protein circulates in the plasma and is involved with metabolic and hormonal processes. Mutations in this gene are associated with adiponectin deficiency. Multiple alternatively spliced variants, encoding the same protein, have been identified. [provided by RefSeq, Apr 2010],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 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.,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].,PTM: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.,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 N-glycosylated.,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 aditionnally 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.,

Research Area

PPAR;Adipocytokine;Type II diabetes mellitus;

Image Data



Western Blot analysis of various cells using Adiponectin Polyclonal Antibody diluted at 1： 2000

Note

For research use only.