Adiponectin (C45B10) Rabbit mAb

For Research Use Only. Not For Use In Diagnostic Procedures.

Applications: W—Western  IP—Immunoprecipitation  IHC—Immunohistochemistry  ChIP—Chromatin Immunoprecipitation  IF—Immunofluorescence  F—Flow cytometry  E-P—ELISA-Peptide

Species Cross-Reactivity*  M—mouse  R—rat  H—human  Mki—mink  C—chicken  Dm—D. melanogaster  X—Xenopus  Z—zebrafish  B—bovine  Dg—dog  Pg—pig  Sc—S. cerevisiae  Ce—C. elegans  Hr—Horse  All—all species expected  Species enclosed in parentheses are predicted to react based on 100% homology.

Molecular Wt.  Isotype  H, M, R
27 kDa  Rabbit IgG**

Background: Adiponectin, also termed AdipoQ, Acrp30, apM1 and GBP28, is an adipokine expressed exclusively in brown and white adipocytes (1). It is secreted into the blood and exists in three major forms: a low molecular weight trimer, a medium molecular weight hexamer and a high molecular weight multimer (1). Adiponectin levels are decreased in obese and insulin-resistant mice and humans (2), suggesting that this adipokine is critical to maintain insulin sensitivity. Adiponectin stimulates the phosphorylation of AMPKα at Thr172 and activates AMPK in skeletal muscle (3). It also stimulates glucose uptake in myocytes (3). The block of AMPK activation by a dominant-negative AMPKα2 isoform inhibits the effect of adiponectin on glucose uptake, indicating that adiponectin stimulates glucose uptake and increases insulin sensitivity through its action on AMPK (3). Adiponectin mutants that are not able to form oligomers larger than trimers have no effect on the AMPK pathway (4). Mutations that render adiponectin unable to form high molecular weight multimers are associated with human diabetes (4), indicating the importance of multimerization for adiponectin activity.

Specificity/Sensitivity: Adiponectin (C45B10) Rabbit mAb detects endogenous levels of total adiponectin protein monomer. It will not detect higher molecular weight forms of adiponectin.

Recommended Antibody Dilutions:
Western blotting  1:1000

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:
Western blotting  1:1000

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

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Western blot analysis of extracts from NIH/3T3 and 3T3-L1 cells using Adiponectin (C45B10) Rabbit mAb.

Background References:

U. S. Patent No. 5,675,063
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