



## Adiponectin Receptor 1 Blocking Peptide

### BACKGROUND

Alzheimer's disease (AD) is characterized by formation of plaques of amyloid beta peptide (Abeta). Autosomally-inherited AD had been shown only in connection with coding sequence mutations. Likely transcription factors whose mutation can cause loss of function are ADR1, MIG1, and PuF, and for gain of function; E12/E47, ITF-2, and RFX2.

Adr1 controls the expression of genes required for ethanol, glycerol, and fatty acid utilization (in yeast). Adr1 can act directly on the promoters of ADH2, ACS1, GUT1, CTA1, and POT1. The yeast homolog of the AMP-activated protein kinase, Snf1, promotes Adr1 chromatin binding in the absence of glucose, and the protein phosphatase complex, Glc7.Reg1, represses its binding in the presence of glucose. A post-translational process is involved in the regulation of Adr1 binding. Chromatin binding by Adr1 is not the only step in ADH2 transcription that is regulated by glucose repression, Adr1 can bind to chromatin in repressed conditions in the presence of hyperacetylated histones. In yeast, nuclear extracts prepared from glucose-repressed and glucose-derepressed cells are equally capable of supporting miniAdr1-dependent transcription and pre-initiation complex formation.

### ORDERING INFORMATION

**CATALOG NUMBER**

X2050B

**SIZE**

50  $\mu$ g

**CUSTOMER STORAGE**

Product should be stored at -20°C.  
Aliquot to avoid freeze/thaw cycles

**FORMULATION**

Provided as solution in phosphate buffered saline with 0.08% sodium azide

**SHIP CONDITIONS**

Ship at ambient temperature, freeze upon arrival

**STABILITY**

Products are stable for one year from purchase when stored properly

### COMMENTS

For use with Adiponectin Receptor 1 polyclonal antibody (Cat. No. X1696P).

### INSTRUCTIONS

Incubate antibody neat with at least a 50 fold stoichiometric excess of blocking peptide at 37 deg C for 20 minutes (molecular weights of peptide and antibody are ~2.5 kDa and ~160 kDa, respectively). Antibody can then be diluted to a concentration suitable for Western blot.

Example: 10  $\mu$ l or 10  $\mu$ g of Exalpha's rabbit anti-Adiponectin Receptor 1 (Cat. No. X1696P) is added to 10  $\mu$ g of blocking peptide for a total volume of 20  $\mu$ l. The mixture is allowed to incubate for 20 minutes at 37 deg C prior to dilution in suitable buffer (for Western blot, etc.).