Anti-Adiponectin Antibody [PSH22-55]

HA724305

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P
Molecular Wt:	Predicted band size: 26 kDa
Clone number:	PSH22-55

Description: Adiponectin (also referred to as GBP-28, apM1, AdipoQ and Acrp30) is a protein hormone and adipokine, which is involved in regulating glucose levels as well as fatty acid breakdown. In humans it is encoded by the ADIPOQ gene and it is produced in primarily in adipose tissue, but also in muscle, and even in the brain. Adiponectin is a protein hormone that modulates a number of metabolic processes, including glucose regulation and fatty acid oxidation. Transgenic mice with increased adiponectin show reduced adipocyte differentiation and increased energy expenditure associated with mitochondrial uncoupling. Adiponectin is secreted into the bloodstream where it accounts for approximately 0.01% of all plasma protein at around 5-10 μg/mL (mg/L). Adiponectin automatically self-associates into larger structures. Initially, three adiponectin molecules bind together to form a homotrimer. Adiponectin exerts some of its weight reduction effects via the brain. This is similar to the action of leptin; adiponectin and leptin can act synergistically. Adiponectin promoted synaptic and memory function in the brain. Humans with lower levels of adiponectin have reduced cognitive function.

Immunogen: Recombinant protein within mouse Adiponectin aa 1-247.

Positive control: Mouse white adipose tissue lysate, Mouse brown adipose tissue lysate, Rat white adipose tissue lysate, Rat brown adipose tissue lysate, Mouse plasma tissue lysate, Human plasma tissue lysate, Rat plasma tissue lysate, human placenta tissue, human white adipose tissue, mouse brown adipose tissue, mouse placenta tissue, mouse white adipose tissue, rat white adipose tissue.

Subcellular location: Secreted.

Database links: SwissProt: Q15848 Human | Q60994 Mouse
Entrez Gene: 246253 Rat

Recommended Dilutions:

WB	1:5,000-1:50,000
IHC-P	1:200

Storage Buffer: 1*PBS (pH7.4), 0.1% BSA, 40% Glycerol, 0.2% Proclean 950.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

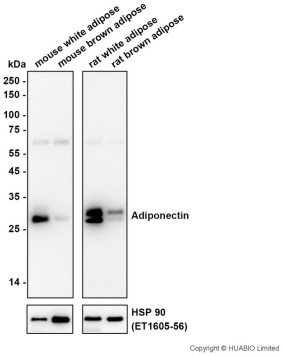

Fig1: Western blot analysis of Adiponectin on different lysates with Rabbit anti-Adiponectin antibody (HA724305) at 1/50,000 dilution.

Lane 1: Mouse white adipose tissue lysate
Lane 2: Mouse brown adipose tissue lysate (low expression)
Lane 3: Rat white adipose tissue lysate
Lane 4: Rat brown adipose tissue lysate (low expression)

Lysates/proteins at 30 µg/Lane.

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

Exposure time: 1 minute; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA724305) at 1/50,000 dilution was used in primary antibody dilution (K1803) at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

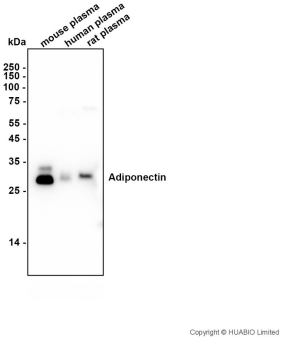

Fig2: Western blot analysis of Adiponectin on different lysates with Rabbit anti-Adiponectin antibody (HA724305) at 1/5,000 dilution.

Lane 1: Mouse plasma tissue lysate
Lane 2: Human plasma tissue lysate
Lane 3: Rat plasma tissue lysate

Lysates/proteins at 30 µg/Lane.

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

Exposure time: 6 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA724305) at 1/5,000 dilution was used in primary antibody dilution (K1803) at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

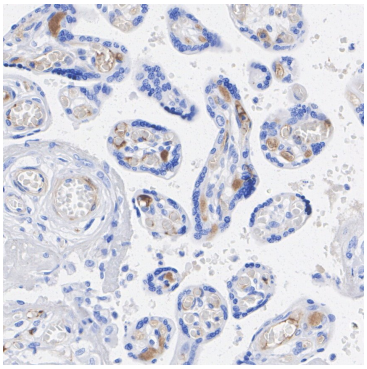

Fig3: Immunohistochemical analysis of paraffin-embedded human placenta tissue with Rabbit anti-Adiponectin antibody (HA724305) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA724305) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

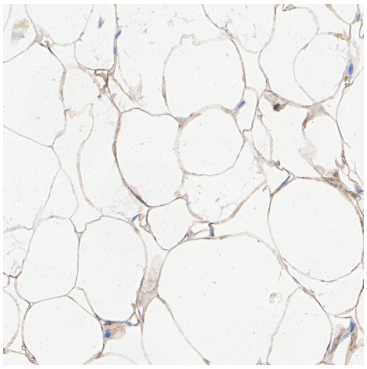

Fig4: Immunohistochemical analysis of paraffin-embedded human white adipose tissue with Rabbit anti-Adiponectin antibody (HA724305) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA724305) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

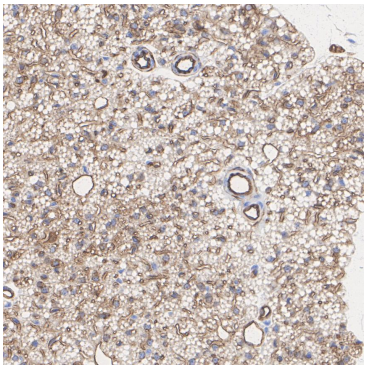

Fig5: Immunohistochemical analysis of paraffin-embedded mouse brown adipose tissue with Rabbit anti-Adiponectin antibody (HA724305) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA724305) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

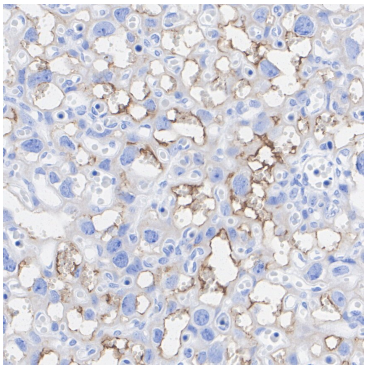

Fig6: Immunohistochemical analysis of paraffin-embedded mouse placenta tissue with Rabbit anti-Adiponectin antibody (HA724305) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA724305) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

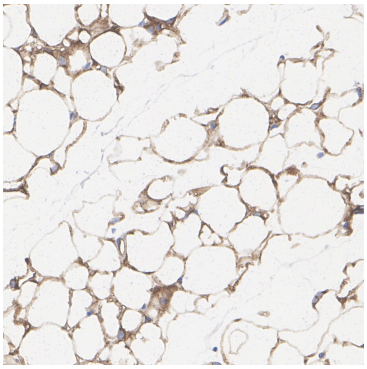

Fig7: Immunohistochemical analysis of paraffin-embedded mouse white adipose tissue with Rabbit anti-Adiponectin antibody (HA724305) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA724305) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

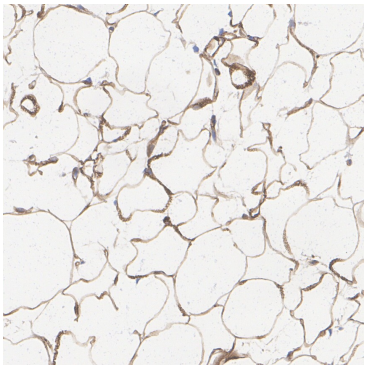

Fig8: Immunohistochemical analysis of paraffin-embedded rat white adipose tissue with Rabbit anti-Adiponectin antibody (HA724305) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA724305) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Background References

1. Choi HM. et. al. Multifaceted Physiological Roles of Adiponectin in Inflammation and Diseases. Int J Mol Sci. 2020 Feb
2. Fang H. et. al. Adiponectin Regulation and Function. Compr Physiol. 2018 Jun