

Anti-Glucose Transporter GLUT4/SLC2A4 Antibody Picoband®

Catalog Number: PA1722

About SLC2A4

Facilitated glucose transport by mammalian cells is not a property of a single protein but an activity associated with a family of structurally related proteins. Glucose transporter 4 is an insulin-responsive glucose transporter. It belongs to solute carrier family 2, member 1. Insulin alters the subcellular localization of GLUT4 vesicles in human muscle, and that this effect is impaired equally in insulin-resistant subjects with and without diabetes. A similar pattern of defects cause insulin resistance in human adipocytes. Human insulin resistance involves a defect in GLUT4 traffic and targeting leading to accumulation in a dense membrane compartment from which insulin is unable to recruit GLUT4 to the cell surface.

Overview

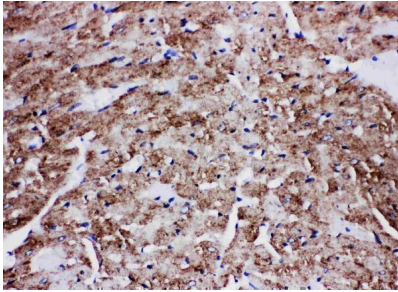
Product Name	Anti-Glucose Transporter GLUT4/SLC2A4 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Glucose Transporter GLUT4/SLC2A4 Antibody catalog # PA1722. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg NaN ₃ . *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P14672

Technical Details

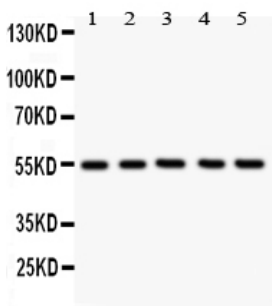
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human GLUT4, identical to the related rat and mouse sequences.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins

Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Rat, Mouse

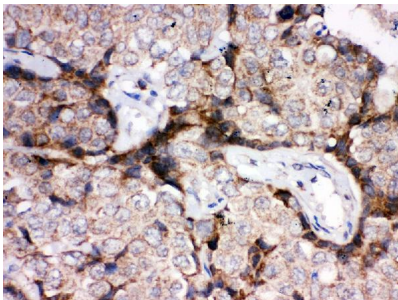
Anti-Glucose Transporter GLUT4/SLC2A4 Antibody Picoband® (PA1722) Images



Anti-GLUT4 antibody, PA1722, IHC(P)IHC(P): Rat Cardiac Muscle Tissue



Anti-GLUT4 antibody, PA1722, Western blotting
All lanes: Anti GLUT4 (PA1722) at 0.5ug/ml
Lane 1: Rat Cardiac Muscle Tissue Lysate at 50ug
Lane 2: Rat Skeletal Muscle Tissue Lysate at 50ug
Lane 3: Mouse Cardiac Muscle Tissue Lysate at 50ug
Lane 4: Mouse Skeletal Muscle Tissue Lysate at 50ug
Lane 5: HELA Whole Cell Lysate at 40ug
Predicted bind size: 55 KDa
Observed bind size: 55 KDa



IHC analysis of GLUT4 using anti-GLUT4 antibody (PA1722). GLUT4 was detected in paraffin-embedded section of human mammary cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-GLUT4 Antibody (PA1722) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

5 Publications Citing This Product

1. PubMed ID: 30733181, Mo Z, Li L, Yu H, Wu Y, Li H. Coumarins ameliorate diabetogenic action of dexamethasone via Akt activation and AMPK signaling in skeletal muscle. *J Pharmacol Sci.* 2019 Mar;139(3):151-157. doi:10.1016/j.jphs.2019.01.001. Epub 2019 Jan 23. PMID:30733181.
2. PubMed ID: 27738449, Acupuncture Alters Expression of Insulin Signaling Related Molecules and Improves Insulin Resistance in OLETF Rats
3. PubMed ID: 30733181, Coumarins ameliorate diabetogenic action of dexamethasone via Akt activation and AMPK signaling in skeletal muscle
Zejun Mo, et al. *J Pharmacol Sci.* 2019 Mar;139(3):151-157. doi: 10.1016/j.jphs.2019.01.001. Epub 2019 Jan 23.

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