Human Glucose transporter 4 (GLUT4) ELISA Kit

Catalog No: #EK7281

Package Size: #EK7281-1 48T #EK7281-2 96T

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

Description

Product Name	Human Glucose transporter 4 (GLUT4) ELISA Kit
Brief Description	ELISA Kit
Applications	ELISA
Species Reactivity	Human (Homo sapiens)
Other Names	GLUT4; glucose transporter 4|insulin-responsive glucose transporter type 4
Accession No.	P14672
Uniprot	P14672
GeneID	6517;
Storage	The stability of ELISA kit is determined by the loss rate of activity. The loss rate of this kit is less than 5% within the expiration date under appropriate storage condition. The loss rate was determined by accelerated thermal degradation test. Keep the kit at 37C for 4 and 7 days, and compare O.D.values of the kit kept at 37C with that of at recommended temperature. (referring from China Biological Products Standard, which was calculated by the Arrhenius equation. For ELISA kit, 4 days storage at 37C can be considered as 6 months at 2 - 8C, which means 7 days at 37C equaling 12 months at 2 - 8C).

Application Details

Detect Range:0.312-20 ng/mL

Sensitivity:0.115 ng/mL

Sample Type:Serum, Plasma, Other biological fluids

Sample Volume: 1-200 µL

Assay Time:1-4.5h

Detection wavelength:450 nm

Product Description

Detection Method:SandwichTest principle:This assay employs a two-site sandwich ELISA to quantitate SLC2A4 in samples. An antibody specific for SLC2A4 has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and anySLC2A4 present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for SLC2A4 is added to the wells. After washing, Streptavidin conjugated Horseradish Peroxidase (HRP) is added to the wells. Following a wash to remove any unbound avidin-enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of SLC2A4 bound in the initial step. The color development is stopped and the intensity of the color is measured.Product Overview:GLUT4 is the insulin-regulated glucose transporter found in adipose tissues and striated muscle (skeletal and cardiac) that is responsible for insulin-regulated glucose disposal.In the absence of insulin, GLUT4 is sequestered in the interior of muscle and fat cells within lipid bilayers of vesicles. Insulin induces the translocation of GLUT4 from intracellular storage sites to the plasma membrane. Insulin binds to the insulin receptor in its dimeric form.

The receptor phosphorylates and subsequently activates IRS-1, which converts PIP2 to PIP3. PIP3 is bound to PKB (protein kinase B), signaling for PDK1 to phosphorylate PKB. Once phosphorylated, PKB is in its active form and phosphorylates other targets that stimulate GLUT4 to be expressed on the plasma membrane.

Note: This product is for in vitro research use only