Datasheet for ABIN7043700

anti-GLUT4 antibody (Intracellular)

2 Images

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Overview

Quantity:	25 µL
Target:	GLUT4 (SLC2A4)
Binding Specificity:	AA 495-507, Intracellular
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This GLUT4 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF)

Product Details

Purpose:	A Rabbit Polyclonal Antibody to Glucose Transporter 4
Immunogen:	Immunogen: Synthetic peptide Immunogen Sequence: (C)KPSTELEYLGPDE, corresponding to amino acid residues 495-507 of human Glucose Transporter 4
Isotype:	IgG
Specificity:	Intracellular, C-terminus
Cross-Reactivity:	Human, Mouse, Rat
Predicted Reactivity:	Rat,mouse - identical
Characteristics:	Anti-GLUT4 Antibody (ABIN7043700, ABIN7044487 and ABIN7044488) is a highly specific antibody directed against an epitope of the human Glucose Transporter 4 protein. The antibody

Product Details

	can be used in western blot and immunohistochemistry applications. It has been designed to recognize GLUT4 from human, rat, and mouse samples.
Purification:	Affinity purified on immobilized antigen.

Target Details

Target:	GLUT4 (SLC2A4)
Alternative Name:	SLC2A4 (SLC2A4 Products)
Background:	Glucose transporter 4, Facilitated glucose transporter member 4, Insulin-responsive glucose transporter type 4, SLC2A4,The GLUT protein family is a member of the major facilitator superfamily of membrane transporters and is encoded by the SLC2 genes. GLUT proteins contain 12 membrane-spanning domains, an N-linked glycosylation site, and intracellular NH2 and COOH termini. In addition there are several conserved residues and motifs designated "sugar transporter signatures".To date, 14 GLUT isoforms have been identified and divided into 3 different classes based on sequence similarity and structural and functional characteristics. GLUT4 together with GLUT 1-3 and 14 belong to Class I.GLUT4 is an insulin-regulated glucose transporter responsible for insulin-regulated glucose uptake into fat and muscle cells. GLUT4 translocates from intracellular stores to the cell surface, from an inactive site to an active one in order to enhance glucose uptake1.GLUT4 is expressed mainly in adipose tissue and skeletal muscle. It is also detected in brain, kidney and intestine.There is no evidence for mutation in GLUT4 that is linked to metabolic disease in humans. However, GLUT4 polymorphisms are rare and equally common in normoglycaemic individuals and type 2 diabetics. General decrease in GLUT4 levels show signs of diabetes, while a disruption in GLUT4 expression in muscle or adipose tissue might contribute to the development of whole-body insulin resistance in humans2. Alternative names: GLUT4, Glucose transporter 4, Facilitated glucose transporter member 4, Insulin-responsive glucose transporter type 4, SLC2A4
Gene ID:	6517
NCBI Accession:	NM_001042
UniProt:	P14672
Pathways:	AMPK Signaling, Carbohydrate Homeostasis, Proton Transport, Brown Fat Cell Differentiation, Warburg Effect

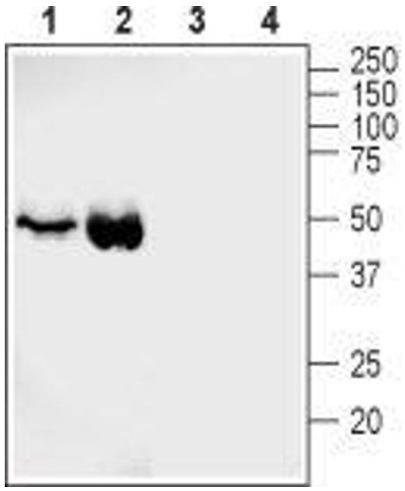
Application Details

Application Notes:	Antigen preadsorption control: 1 µg peptide per 1 µg antibody Application Dilutions Immunohistochemistry paraffin embedded sections ihc: 1:400 Application Dilutions Western blot wb: 1:400
Comment:	Negative Control: (ABIN7237006) Blocking Peptide: (ABIN7237006)
Restrictions:	For Research Use only

Handling

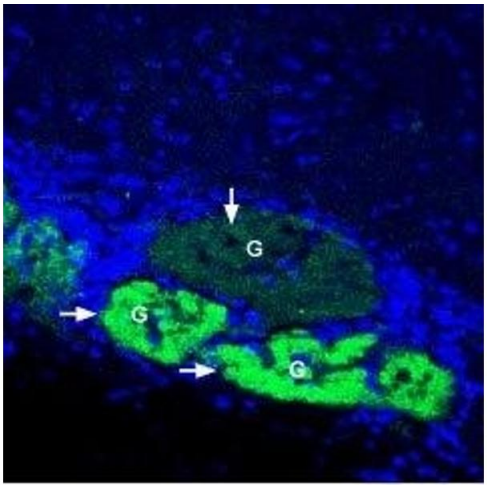
Format:	Lyophilized
Reconstitution:	0.2 mL double distilled water (DDW).
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4
Storage:	4 °C,-20 °C
Storage Comment:	Storage before reconstitution: The antibody ships as a lyophilized powder at room temperature. Upon arrival, it should be stored at -20°C. Storage after reconstitution: The reconstituted solution can be stored at 4°C for up to 1 week. For longer periods, small aliquots should be stored at -20°C. Avoid multiple freezing and thawing. Centrifuge all antibody preparations before use (10000 x g 5 min).

Images



Western Blotting

Image 1. Western blot analysis of rat (lanes 1 and 3) and mouse (lanes 2 and 4) heart membranes: - 1,2. Anti-GLUT4 Antibody (ABIN7043700, ABIN7044487 and ABIN7044488), (1:400).3,4. Anti-GLUT4 Antibody, preincubated with GLUT4 Blocking Peptide (#BLP-GT024).



Immunohistochemistry

Image 2. Expression of Glucose Transporter 4 in rat olfactory bulb - Immunohistochemical staining of immersion-fixed, free floating rat brain frozen sections using Anti-GLUT4 Antibody (ABIN7043700, ABIN7044487 and ABIN7044488), (1:400), followed by goat-anti-rabbit-AlexaFluor-488. GLUT4 staining (green) appears in some glomeruli (""G"" and horizontal arrows), but not in others (vertical arrow). Cell nuclei are stained with DAPI (blue).

