

Product Specification Sheet

Glucose Transporter 7 (Glut-7) Antibodies

Cat. # GT73-P	Human Glut-7 Control/blocking Peptide	SIZE: 100 ug
Cat. # GT73-A	Rabbit Anti-Human Glut-7 IgG (aff pure)	SIZE: 100 ug
Cat. # GT73-S	Rabbit Anti-Human Glut-7 antiserum	SIZE: 100 ul

Most mammalian cells transport glucose through a family of membrane proteins known as glucose transporters. Molecular cloning of these glucose transporters has identified a family of closely related genes that encodes at least 7 proteins (**Glut-1 to Glut-13**, Mol. Wt. 40-80 kDa) and Sodium glucose co-transporter-1 (SGLT-1, 662 amino acids; ~75 kDa). Individual member of this family have identical predicted secondary structures with 12 transmembrane domains. Both N and C-termini are predicted to be cytoplasmic. Most differences in sequence homology exist within the four hydrophilic domains that may play a role in tissue-specific targeting. Glut isoform differ in their tissue expression, substrate specificity and kinetic characteristics.

Glut-7 (rat 528-aa), expressed in liver and other gluconeogenic tissues, mediates glucose flux across endoplasmic reticulum membrane.

Source of Antigen and Antibodies

Antigen	12-aa peptide from Human Glut-7 ; Designation (GT73-P, control peptide) conjugated to KLH; Epitope location ~ C-terminal, Cytoplasmic domain
Ab Host/type	Rabbit, Polyclonal Unpurified antiserum (cat #GT73-S) Aff pure IgG (cat # GT73-A)
2-ab	Anti-rabbit IgG-HRP cat # 20320 (AP, biotin, FITC conjugates also available)
-ve control IgG	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as -ve control

Form & Storage of Antibodies/Peptide Control

Antiserum (unpurified)
100ul solution lyophilized powder
Supplied in Buffer: 0.05% azide
Reconstitute powder in 100 ul PBS

Affinity pure IgG
100 ug/100ul solution lyophilized powder
Supplied in **Buffer:** PBS+0.1% BSA
Reconstitute powder in PBS at 1mg/ml

Control/blocking peptide
100 ug/100 ul solution lyophilized powder
Supplied in Buffer: PBS pH 7.5,
Reconstitute powder in PBS at 1 mg/ml.

Storage

Short-term: unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC..

Long-term: at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at -20oC or below.

Shipping: 4oC for solutions and room temp for powder

Recommended Usage

Western Blotting (1:1K for antiserum and 1-5 ug/ml for affinity pure IgG using Chemiluminescence technique).

ELISA: Control peptide can be used to coat ELISA plates at 1 ug/ml and detected with antibodies (1:10-50K for neat serum and 0.5-1 ug/ml for affinity pure).

Histochemistry: not tested.

Specificity & Cross-reactivity

Human GT73-P sequence is not well conserved in glut-7 from other species. The antibody crossreactivity in other species has not been determined. Control peptide, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity.

General References: 1. Li Q et al (2004) Am J. Physiol. Gastroenterol.. Liver Physiol. 287, G236-G242

Citations of for Glut- antibodies (see updated list at the web site)

Manolescu A 2005 J. Biol. Chem., 280: 42978 - 42983.
WB IHC

Li Q 2004 Am J Physiol Gastrointest Liver Physiol, 287, G236-G242
WB, IF

*This product is for In vitro research use only.

Related material available from ADI

Antibodies for Glut 1-13 & SGLT-1/2

GT73-S-A-P 70912A

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