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SGLT1 Antibody

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W	Reactivity: H R	Sensitivity: Endogenous	MW (kDa): 61	Source/Isotype: Rabbit	UniProt ID: #P13866	Entrez-Gene Id: 6523
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Product Usage Information

Application

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

SGLT1 Antibody detects endogenous levels of total SGLT1 protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly247 of human SGLT1 protein. Antibodies were purified by protein A and peptide affinity chromatography.

Background

Sodium/glucose cotransporter 1 (SGLT1) is an active glucose transporter, which utilizes sodium gradients to transport glucose into cells independent of extracellular glucose concentration. SGLT1 is an essential glucose active transport protein that helps maintain high intracellular glucose levels (1). Expression of SGLT1 is mainly seen in intestinal and kidney epithelial cells, although a recent study also characterized SGLT1 expression in cardiac myocytes (2). Abnormal SGLT1 expression may be associated with cases of type 2 diabetes mellitus and myocardial ischaemia (2). Mutation of the corresponding SGLT1 gene can result in congenital glucose/galactose malabsorption, which can lead to neonatal diarrhea and subsequent death if left untreated (3). A recent study of the role of EGFR in cancer cell survival indicates that EGFR can prevent autophagic cell death independent of EGFR kinase activity because the receptor interacts with and stabilizes SGLT1 to maintain basal intracellular glucose levels (4).

Background References

1. Wright, E.M. et al. (1994) *J Exp Biol* 196, 197-212.
2. Banerjee, S.K. et al. (2009) *Cardiovasc Res* 84, 111-8.
3. Martín, M.G. et al. (1996) *Nat Genet* 12, 216-20.
4. Weihua, Z. et al. (2008) *Cancer Cell* 13, 385-93.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **R:** Rat

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