

Product datasheet for **AP20773PU-N**

GLUT4 (SLC2A4) Rabbit Polyclonal Antibody

Product data:

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| Product Type: | Primary Antibodies |
| Applications: | IHC, WB |
| Recommended Dilution: | Western blot: 1/500-1/1000. Immunohistochemistry on Paraffin Sections: 1/50-1/200. |
| Reactivity: | Human, Mouse, Rat |
| Host: | Rabbit |
| Clonality: | Polyclonal |
| Specificity: | This antibody detects endogenous levels of Glut4 protein. (region surrounding Arg271) |
| Formulation: | Phosphate buffered saline (PBS), pH~7.2 State: Aff - Purified State: Liquid purified Ig fraction (> 95% pure by SDS-PAGE) Preservative: 15mM Sodium Azide |
| Concentration: | 1.0 mg/ml |
| Purification: | Affinity Chromatography using epitope-specific immunogen |
| Conjugation: | Unconjugated |
| Storage: | Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing. |
| Stability: | Shelf life: one year from despatch. |
| Predicted Protein Size: | ~45.0 kDa |
| Gene Name: | solute carrier family 2 member 4 |
| Database Link: | <u>Entrez Gene 20528 Mouse</u> <u>Entrez Gene 25139 Rat</u> <u>Entrez Gene 6517 Human</u> <u>P14672</u> |



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Background:

Glucose is fundamental to the metabolism of mammalian cells. Its passage across cell membranes is mediated by a family of transporters termed glucose transporters or Gluts. In adipose and muscle tissue, insulin stimulates a rapid and dramatic increase in glucose uptake, which is largely due to the redistribution of the insulin-inducible glucose transporter, Glut4. In response to insulin, Glut4 is quickly shuttled from an intracellular storage site to the plasma membrane, where it binds glucose. In contrast, the ubiquitously expressed glucose transporter Glut1 is constitutively targeted to the plasma membrane and shows a much less dramatic translocation in response to insulin. Glut1 and Glut4 are twelve pass transmembrane proteins (12TM) whose carboxy-termini may dictate their cellular localization. Aberrant Glut4 expression has been suggested to contribute to such maladies as obesity and diabetes. Glut4 null mice have shown that while functional Glut4 protein is not required for maintaining normal glucose levels, it is necessary for sustained growth, normal cellular glucose, fat metabolism and prolonged longevity.

Synonyms:

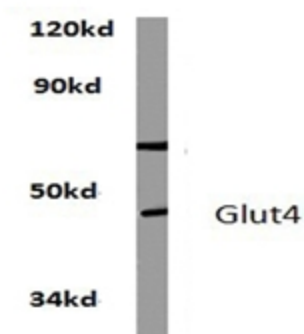
GLUT-4, Glucose transporter 4, Glucose transporter type 4 insulin-responsive

Protein Families:

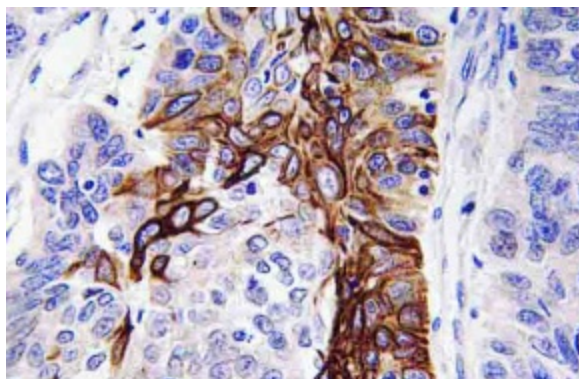
Druggable Genome, Transmembrane

Protein Pathways:

Adipocytokine signaling pathway, Insulin signaling pathway, Type II diabetes mellitus

Product images:


Western blot analysis of GLUT4 / SLC2A4 antibody (Cat.-No AP20773PU-N) in extracts from A549 cells at 1/500 dilution.



Immunohistochemistry analysis of GLUT4 / SLC2A4 antibody (Cat.-No AP20773PU-N) in paraffin-embedded human lung carcinoma tissue.