Datasheet for ABIN7491733

# GLUT4 Protein

2 Images

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## Overview

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|---|---|
| Quantity: | 100 µg |
| Target: | GLUT4 (SLC2A4) |
| Origin: | Human |
| Source: | HEK-293 Cells |
| Protein Type: | Synthetic Nanodisc |

## Product Details

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| Purpose: | Human SLC2A4 full length protein-synthetic nanodisc |
| Characteristics: | Unlike other membrane scaffold protein (MSP) Nanodisc on the market, our synthetic Nanodisc can be prepared directly from the cells. The polymers used during this process have a dual function. It dissolves the cell membranes, like the detergent, and uses cellular phospholipids to form Nanodisc around the membrane proteins. The target protein embedded Nanodiscs can then be purified. |

## Target Details

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|---|---|
| Target: | GLUT4 (SLC2A4) |
| Alternative Name: | SLC2A4 (SLC2A4 Products) |
| Background: | This gene is a member of the solute carrier family 2 (facilitated glucose transporter) family and encodes a protein that functions as an insulin-regulated facilitative glucose transporter. In the absence of insulin, this integral membrane protein is sequestered within the cells of muscle and adipose tissue. Within minutes of insulin stimulation, the protein moves to the cell surface and begins to transport glucose across the cell membrane. Mutations in this gene have been |

## Target Details

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| | associated with noninsulin-dependent diabetes mellitus (NIDDM). [provided by RefSeq, Jul 2008] |
| Molecular Weight: | The human full length SLC2A4 protein has a MW of 54.6 kDa |
| UniProt: | P14672 |
| Pathways: | AMPK Signaling, Carbohydrate Homeostasis, Proton Transport, Brown Fat Cell Differentiation, Warburg Effect |

## Application Details

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| Comment: | Advantages of Synthetic Nanodiscs:<br>• Highly purified membrane proteins<br>• High solubility in aqueous solutions<br>• High stability<br>• Proteins are in a native membrane environment and remain biologically active<br>• No detergent and can be used for cell-based assays<br>• No MSP backbone proteins<br><br>Limitations of Synthetic Nanodiscs:<br>• Intolerant to acids and high concentrations of divalent metal ions |
| Restrictions: | For Research Use only |

## Handling

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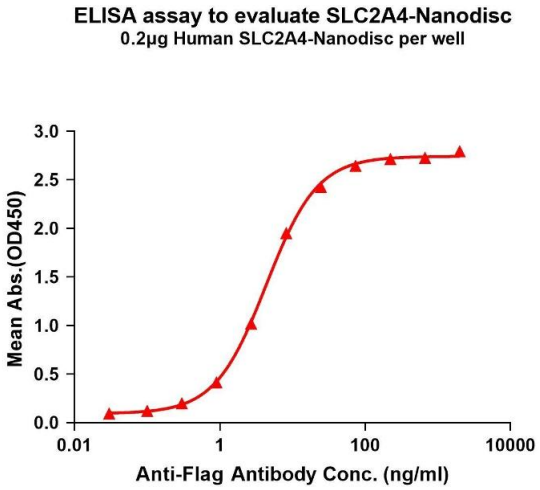
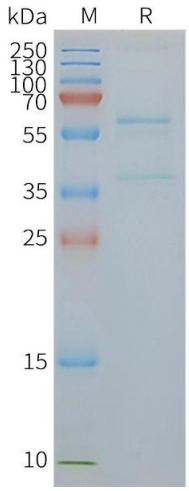
| Format: | Lyophilized |
| Buffer: | Lyophilized from nanodisc solubilization buffer (20 mM Tris-HCl, 150 mM NaCl, pH 8.0). Normally 5 % - 8 % trehalose is added as protectants before lyophilization. |
| Storage: | -20 °C,-80 °C |
| Storage Comment: | Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature. |
| Expiry Date: | 12 months |




## ELISA

**Image 1.** Elisa plates were pre-coated with Flag Tag A4-Nanodisc (0.2 μg/per well). Serial diluted anti-Flag monoclonal antibody solutions were added, washed, and incubated with secondary antibody before Elisa reading. From above data, the EC50 for anti-Flag monoclonal antibody binding with A4-Nanodisc is 4.357 ng/mL.




## SDS-PAGE

**Image 2.** Human A4-Nanodisc, Flag Tag on SDS-PAGE