

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Glut1 in ELISAs.
Source	Monoclonal Mouse IgG ₃ Clone # 202921
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	NS0 mouse myeloma cell line transfected with human Glut1 Met1-Val492 Accession # AAA52571
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

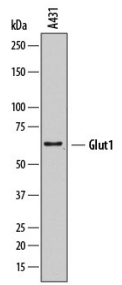
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	2 µg/mL	See Below
Simple Western	20 µg/mL	See Below

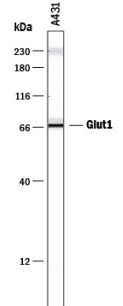
DATA

Western Blot



Detection of Human Glut1 by Western Blot. Western blot shows lysates of A431 human epithelial carcinoma cell line. PVDF membrane was probed with 2 µg/mL of Mouse Anti-Human Glut1 Monoclonal Antibody (Catalog # MAB14181) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for Glut1 at approximately 60 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Simple Western



Detection of Human Glut1 by Simple Western™. Simple Western lane view shows lysates of A431 human epithelial carcinoma cell line, loaded at 0.2 mg/mL. A specific band was detected for Glut1 at approximately 69 kDa (as indicated) using 20 µg/mL of Mouse Anti-Human Glut1 Monoclonal Antibody (Catalog # MAB14181). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system. Non-specific interaction with the 230 kDa Simple Western standard may be seen with this antibody.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Glut1 belongs to the facilitative glucose transport protein family that comprises 13 members. It is an integral membrane protein with 12 transmembrane domains and is expressed at variable levels in many tissues including brain endothelial cells, CD8⁺ T cells, and erythrocytes (1-5). Glut1 is a major glucose transporter that mediates glucose transport across the mammalian blood-brain barrier.

References:

1. Mueckler, M. *et al.* 1994, Eur. J. Biochem. **219**:713.
2. Meuckler, M. *et al.* 1985, Science **229**:941.
3. Jones, K.S. *et al.* 2006, J. Virol. 8291.
4. Takenouchi, N. *et al.* 2007, J. Virol. 1506.
5. Kinet, S. *et al.* 2007, Retrovirology **4**:31.