

DESCRIPTION

Species Reactivity	Human
Specificity	Detects a synthetic peptide corresponding to residues near amino acid 500 of human SLC1A5 protein by Direct ELISA.
Source	Monoclonal Mouse IgG _{2B} Clone # 1085750
Purification	Protein A or G purified
Immunogen	Synthetic Peptide Accession # Q15758
Conjugate	Alexa Fluor Plus 647 Excitation Wavelength: 658 nm Emission Wavelength: 675 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

DATA

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

SLC1A5 is a sodium dependent antiporter also known as ASCT2 (ASC amino acid Transporter2). It is a member of the solute carrier (SLC) superfamily of transporters and plays an important role in tumors. It is one of the 3 proteins, including SLC7A5 and SLC3A2, that are among the highest differentially expressed genes in activated lymphocytes and cancerous cells. Pharmacological inhibition of SLC1A5 was found to abrogate the effector functions of NK cells. In a pancancer analysis of SLC1A5, it has been demonstrated to be a prognostic biomarker in cancer patients.

References:

1. Nachef M, Ali AK, Almutairi SM, Lee SH. Targeting SLC1A5 and SLC3A2/SLC7A5 as a Potential Strategy to Strengthen Anti-Tumor Immunity in the Tumor Microenvironment. *Front Immunol.* 2021 Apr 19;12:624324. doi: 10.3389/fimmu.2021.624324. PMID: 33953707; PMCID: PMC8089370.
2. Chen P, Jiang Y, Liang J, Cai J, Zhuo Y, Fan H, Yuan R, Cheng S, Zhang Y. SLC1A5 is a novel biomarker associated with ferroptosis and the tumor microenvironment: a pancancer analysis. *Aging (Albany NY).* 2023 Aug 10;15(15):7451-7475. doi: 10.18632/aging.204911. Epub 2023 Aug 10. PMID: 37566748; PMCID: PMC10457057.

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