Anti-TSY-LeuT [6A10] Bulk Size Ab00462-1.1-BT

Isotype and Format: Mouse IgG1, Kappa
Clone Number: 6A10
Alternative Name(s) of Target: Bacterial Leucine Transporter
UniProt Accession Number of Target Protein: O67854
Published Application(s): FSEC, WB
Published Species Reactivity: Aquifex aeolicus (strain VF5)
Immunogen: Purified LeuT in detergent.
Specificity:
Application Notes: The antibody binds specifically to LeuT is a bacterial symporter specific for small hydrophobic amino acids such as leucine and alanine, driven by the sodium electrochemical gradient across the membrane. The antibody is specific for the inward-open conformation of LeuT, which required weakening of the Na2 binding site by mutating Thr 354 to Val, and Ser 355 to Ala in TM8, and the mutation of Tyr 268 to Ala in TM6 of the cytoplasmic gate. (TSY_LeuT). The Fab fragment of the antibody was obtained by papain digestion. Due to the high homology of LeuT to human neurotransmitter transporters, its crystal structure can reveal the mechanism of action of many drugs, such as antidepressants.
Antibody First Published in: Krishnamurthy et al. X-ray structures of LeuT in substrate-free outward-open and apo inward-open states. Nature. 2012 Jan 9;481(7382):469-74. PMID:22230955
Note on publication: Describes the role of neurotransmitter sodium symporters (NSS) in chemical neurotransmission, and the importance of LeuT, a bacterial NSS homologue, as a structural template. Crystal structures of the outward-open and inward-open states of LeuT, stabilised by the monoclonal antibodies 2B12 and 6A10, are presented.

Product Form

Size: 1 mg Purified antibody in bulk size.
Purification: Protein A affinity purified
Supplied In: PBS only.
Storage Recommendation: Store at 4^{o}C for up to 3 months. Note, this antibody is provided without added preservatives, it is therefore recommed this antibody be handled under sterile conditions. For longer storage, aliquot and store at -20^{o}C.
Concentration: 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic

procedures for humans or animals.