

Anti-SH3GL2 Antibody Picoband™ (monoclonal, 6I8E1)

Catalog # ABO16586

Product Information

Application	WB
Primary Accession	Q99962
Host	Mouse
Isotype	Mouse IgG2a
Reactivity	Rat, Mouse
Clonality	Monoclonal
Format	Lyophilized
Description	Anti-SH3GL2 Antibody Picoband™ (monoclonal, 6I8E1) . Tested in WB applications. This antibody reacts with Mouse, Rat.
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.

Additional Information

Gene ID	6456
Other Names	Endophilin-A1, EEN-B1, Endophilin-1, SH3 domain protein 2A, SH3 domain-containing GRB2-like protein 2, SH3GL2, CNSA2, SH3D2A
Calculated MW	39962
Application Details	Western blot, 0.25-0.5 µg/ml, Mouse, Rat
Source	Eukaryota
Contents	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
Clone Names	Clone: 6I8E1
Immunogen	E.coli-derived human SH3GL2 recombinant protein (Position: R65-Q292).
Purification	Immunogen affinity purified.
Storage	At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.

Protein Information

Name	SH3GL2 (HGNC:10831)
Synonyms	CNSA2, SH3D2A

Function	Implicated in endocytosis. Involved ultrafast endocytosis, by mediating, in a first step, neck formation and in a second step, aids in the removal of clathrin coats from the regenerated vesicles. May recruit other proteins to membranes with high curvature. Required for BDNF-dependent dendrite outgrowth. Cooperates with SH3GL2 to mediate BDNF-NTRK2 early endocytic trafficking and signaling from early endosomes.
Cellular Location	Cytoplasm {ECO:0000250 UniProtKB:O35179}. Membrane {ECO:0000250 UniProtKB:O35179}; Peripheral membrane protein {ECO:0000250 UniProtKB:O35179}. Early endosome {ECO:0000250 UniProtKB:Q62420}. Presynapse {ECO:0000250 UniProtKB:O35179}
Tissue Location	Brain, mostly in frontal cortex. Expressed at high level in fetal cerebellum

Background

Endophilin-A1 is a protein that in humans is encoded by the SH3GL2 gene. Endophilin proteins are part of a large family of Bin/Amphiphysin/Rvs (BAR) domain proteins that are involved in cell membrane remodeling. The endophilins are encoded by five genes, which produce endophilin A 1-3 and B 1-2. Endophilins are involved in many cellular mechanisms, such as synaptic vesicle recycling, receptor trafficking, and membrane remodeling processes. Research studies indicate that endophilin 1 (endophilin A1, SH3GL2) can induce different membrane shapes and participate in the morphogenesis of dendritic spines. Endophilin 1 is also involved in regulating blood brain barrier permeability via the EGFR-JNK pathway.

Images

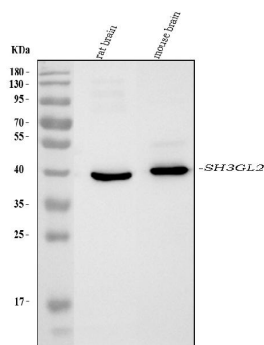


Figure 1. Western blot analysis of SH3GL2 using anti-SH3GL2 antibody (M05430). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: rat brain tissue lysates, Lane 2: mouse brain tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-SH3GL2 antigen affinity purified monoclonal antibody (Catalog # M05430) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for SH3GL2 at approximately 40 kDa. The expected band size for SH3GL2 is at 40 kDa.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.