10320 Camino Santa Fe, Suite G
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Anti-SH3GL2 Antibody Picoband™ (monoclonal, 6I8E1)

Catalog # ABO16586

Specification

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

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

Application Details
Western blot, 0.25-0.5 µg/ml, Mouse, Rat

Contents
Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.

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.**

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

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Name SH3GL2

Synonyms CNSA2, SH3D2A

Function
Implicated in synaptic vesicle endocytosis. 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

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

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

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

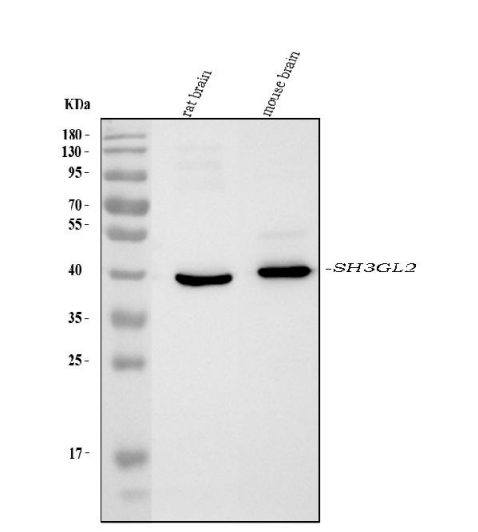

Figure 1. Western blot analysis of SH3GL2 using anti-SH3GL2 antibody (M05430). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

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.

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