Datasheet for ABIN2483699

anti-SHANK1 antibody (AA 469-691) (Atto 390)

3 Images

Go to Product page

Overview

Quantity:	100 µg
Target:	SHANK1
Binding Specificity:	AA 469-691
Reactivity:	Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This SHANK1 antibody is conjugated to Atto 390
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Antibody Array (AA)

Product Details

Immunogen:	Fusion protein amino acids 469-691 (SH3/PDZ domains) of rat Shank1
Clone:	N22-21 (Formerly S22-21)
Isotype:	IgG1
Specificity:	Detects ~190-220 kDa (alternative splice variants). No cross-reactivity against Shank2 or Shank3.
Cross-Reactivity:	Human, Mouse, Rat
Purification:	Protein G Purified

Target Details

Target:	SHANK1

Target Details

Alternative Name:	SHANK1 (SHANK1 Products)
Background:	Shank proteins make up a family of scaffold proteins identified through their interaction with a variety of membrane and cytoplasmic proteins (1). Shank proteins at postsynaptic sites of excitatory synapses play roles in signal transmission into the postsynaptic neuron. Studies suggest that Shank2 is expressed in the neurons of the developing retina, and could play a role in the neuronal differentiation of the developing retina (2). Other recent studies suggest that the disruption of glutamate receptors at the Shank postsynaptic platform could contribute to the destruction of the postsynaptic density, which underlies the synaptic dysfunction and loss in Alzheimer's disease (3).
Gene ID:	78957
NCBI Accession:	NP_113939
UniProt:	Q9WV48
Pathways:	Synaptic Membrane, Maintenance of Protein Location

Application Details

Application Notes:	• WB (1:1000) • IHC (1:1000) • ICC/IF (1:100) • optimal dilutions for assays should be determined by the user.
Comment:	1 µg/ml of ABIN2483699 was sufficient for detection of Shank1 in 10 µg of rat brain lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.
Restrictions:	For Research Use only

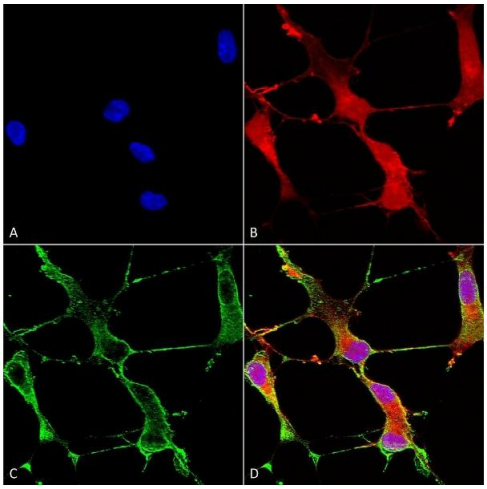
Handling

Format:	Liquid
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C

Handling

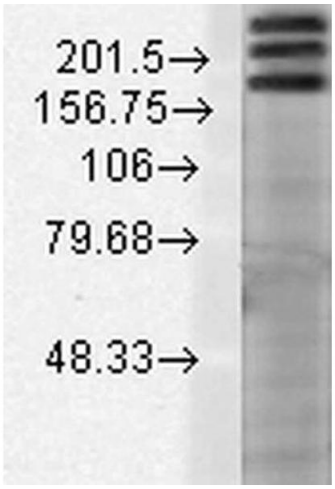
Storage Comment:	Conjugated antibodies should be stored at 4°C

Validation report #103875 for Immunofluorescence (IF)



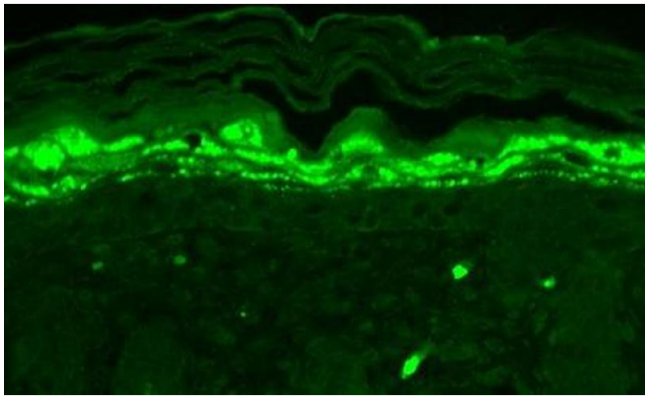
Immunocytochemistry

Image 1. Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-SHANK1 Monoclonal Antibody, Clone S22-21 (ABIN2483699). Tissue: Neuroblastoma cells (SH-SY5Y). Species: Human. Fixation: 4 % PFA for 15 min. Primary Antibody: Mouse Anti-SHANK1 Monoclonal Antibody (ABIN2483699) at 1:50 for overnight at 4 °C with slow rocking. Secondary Antibody: AlexaFluor 488 at 1:1000 for 1 hour at RT. Counterstain: Phalloidin-iFluor 647 (red) F-Actin stain, Hoechst (blue) nuclear stain at 1:800, 1.6 mM for 20 min at RT. (A) Hoechst (blue) nuclear stain. (B) Phalloidin-iFluor 647 (red) F-Actin stain. (C) SHANK1 Antibody (D) Composite.



Western Blotting

Image 2. Western Blot analysis of Rat brain membrane lysate showing detection of SHANK1 protein using Mouse Anti-SHANK1 Monoclonal Antibody, Clone S22-21 . Load: 15 µg. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-SHANK1 Monoclonal Antibody at 1:1000 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.



Immunohistochemistry

Image 3. Immunohistochemistry analysis using Mouse Anti-SHANK1 Monoclonal Antibody, Clone S22-21 . Tissue: backskin. Species: Mouse. Fixation: Bouin's Fixative and paraffin-embedded. Primary Antibody: Mouse Anti-SHANK1 Monoclonal Antibody at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT. Localization: Filaggrin-like staining (upper layer aggregations of staining).