# antibodies - online.com







# anti-DLG4 antibody



**Images** 



Overview

Quantity:	100 μg
Target:	DLG4
Reactivity:	Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This DLG4 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunocytochemistry (ICC), Antibody Array (AA), Multiplex Immunohistochemistry (mIHC)

#### **Product Details**

Immunogen:	Recombinant rat PSD-95
Clone:	6G6
Isotype:	lgG2a
Specificity:	Detects $\sim$ 100 kDa. An additional protein of >100 kDa is also detected. Additional cross-reactive bands are detected at $\sim$ 75 kDa and 50 kDa in rat and mouse samples.
Cross-Reactivity:	Cow, Human, Mouse, Rat
Purification:	Protein G Purified

## Target Details

Target:	DLG4

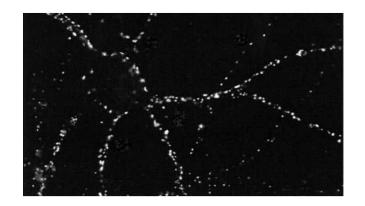
## **Target Details**

Alternative Name:	PSD95 (DLG4 Products)
Background:	Postsynaptic Density protein 95 (PSD95), also known as Synapse associated protein 90 kDa, is
	a member of the membrane-associated guanylate kinase (MAGUK) family of proteins. PSD95 is
	a scaffolding protein and is involved in the assembly and function of the postsynaptic density
	complex (1). These family members consist of an N-terminal variable segment followed by
	three amino-terminal PDZ domains, an upstream SH3 domain and an inactive carboxyl-termina
	guanylate kinase (GK) domain. The first and second PDZ domain localize NMDA receptors and
	K+ channels to synapses, and the third binds to neuroligins which are neuronal cell adhesion
	molecules that interact with b-neurexins and form intercellular junctions. PSD-95 also binds to
	neuronal nitric oxide synthase, possibly through interactions between PDZ domains present on
	both proteins (2). Thus different PDZ domains of PSD-95 might be specialized for distinct
	functions (3, 4). PSD95 participates in synaptic targeting of AMPA receptors through an indirect
	manner involving Stargazin and related transmembrane AMPA receptor regulatory proteins
	(TARPs) (5). The protein is implicated in experience dependent plasticity and plays an
	indispensable role in learning (6). Mutations in PSD95 are associated with autism (7).
Gene ID:	29495
NCBI Accession:	NP_062567
UniProt:	P31016
Pathways:	Regulation of Muscle Cell Differentiation, Synaptic Membrane, Skeletal Muscle Fiber
	Development, Asymmetric Protein Localization, Regulation of long-term Neuronal Synaptic
	Plasticity
Application Details	
Application Notes:	• WB (1:250)
	• IHC (1:1000)
	• ICC/IF (1:100)
	<ul> <li>optimal dilutions for assays should be determined by the user.</li> </ul>
Comment:	1 μg/ml was sufficient for detection of PSD-95 on 20 μg rat brain tissue extract by ECL
	immunoblot analysis using Goat Anti-Mouse IgG: HRP as the secondary.
Restrictions:	For Research Use only
Restrictions: Handling	For Research Use only

#### Handling

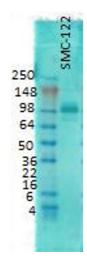
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	-20°C

Validation report #104335 for Multiplex Immunohistochemistry (mIHC)



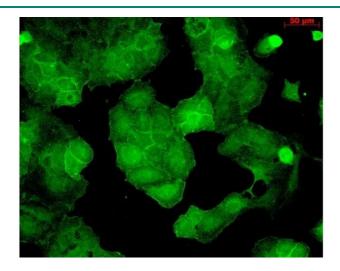
#### **Immunocytochemistry**

Image 1. Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-PSD95 Monoclonal Antibody, Clone 6G6 (ABIN361693 and ABIN361694). Tissue: dissociated hippocampal neurons. Species: Rat. Fixation: Cold 4% paraformaldehyde/0.2% glutaraldehyde in 0.1M sodium phosphate buffer. Primary Antibody: Mouse Anti-PSD95 Monoclonal Antibody (ABIN361693 and ABIN361694) at 1:1000 for 12 hours at 4°C. Secondary Antibody: FITC Goat Anti-Mouse IgG (green) at 1:50 for 30 minutes at RT. Magnification: 10X. Courtesy of: Mary Kennedy, Caltech.



#### **Western Blotting**

Image 2. western rat membrane 1 in 1000 PSD 95 copy.



#### **Immunocytochemistry**

**Image** 3. Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-PSD95 Monoclonal Antibody, Clone 6G6 (ABIN361693 and ABIN361694). Tissue: HaCaT cells. Species: Human. Fixation: Cold 100 % methanol for 10 minutes at -20 °C. Primary Antibody: Mouse Anti-PSD95 Monoclonal Antibody (ABIN361693 and ABIN361694) at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT. Localization: Junction staining.

### ♦ Validation report #104331 for Multiplex Immunohistochemistry (mIHC)



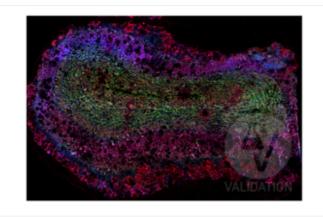
#### Successfully validated (Multiplex Immunohistochemistry (mIHC))

by Akoya Biosciences

Report Number: 104331

Date: Apr 20 2021

Target:	DLG4
Lot Number:	MP686150
Method validated:	Multiplex Immunohistochemistry (mIHC)
Positive Control:	Fresh frozen mouse olfactory bulb
Negative Control:	Unlabeled control (mouse fresh frozen)
Notes:	Passed. The anti-DLG4 antibody ABIN361694 specifically labels areas that contain high levels
	of post-synaptic boutons; these are located throughout the murine olfactory bulb and are
	concentrated in the glomerular layer.
Primary Antibody:	ABIN361694
Protocol:	Protocol details are described in the Akoya Biosciences CODEX® User Manual (see
	https://www.akoyabio.com/wp-content/uploads/2021/01/CODEX-User-Manual.pdf).
	Tissue preparation as outlined in the Akoya Biosciences CODEX® User Manual fresh-frozer
	tissue protocol.
	<ul> <li>Conjugation of the anti-DLG4 antibody ABIN361694 to an oligo barcode used to bind oligo- conjugated fluorophore ATTO 550.</li> </ul>
Experimental Notes:	No signal was detected in unlabeled specimens.
	Specific staining of DLG4 was also observed with human FFPE cortical tissue sections with
	both citrate antigen retrieval and EDTA antigen retrieval.
	Optimal staining and signal to noise ratios were obtained if tissue was pre-treated for
	enogenous tissue autofluorescence removal (see https://www.akoyabio.com/wp-
	content/uploads/2020/07/Customer-Demonstrated-Protocol-Autofluorescence-Quenching
	Mar2020.pdf).



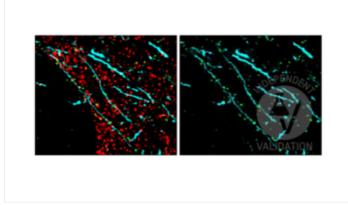
# Validation image no. 1 for anti-Discs, Large Homolog 4 (Drosophila) (DLG4) antibody (ABIN361694)

Murine fresh frozen coronal olfactory bulb section

(Thickness = 5 μm) labeled with anti-DLG4 antibody

ABIN361694 (red; bound to fluorophore ATTO 550).

Labeling is present throughout olfactory bulb layers with a strong degree of labeling in the glomerular layer; this is consistent with the large number of postsynaptic targets within the glomerular neuropil. Slc17a7 and Map2 were labeled with ABIN1027710 (green; bound to fluorophore ATTO 550) and ABIN125739 (blue; bound to fluorophore



# Validation image no. 2 for anti-Discs, Large Homolog 4 (Drosophila) (DLG4) antibody (ABIN361694)

FFPE normal human cortex tissue section labeled with anti-DLG4 antibody ABIN361694 (green; bound to fluorophore ATTO 550) after EDTA antigen retrieval. MAP2 and Synapsin were labeled with anti-MAP2 antibody ABIN125739 (cyan; bound to fluorophore ATTO 550) and anti-SYN1 antibody ABIN5542390 (red; bound to fluorophore AF488).