

Code No. 28023

**Anti-
Drebrin A (DAS2) Rabbit IgG Affinity Purify**Volume : 50 µg
Lot No. : 0B-701

Introduction : Drebrin (developmentally regulated brain protein), isolated and identified from chicken brain as a protein associated with brain development, is conserved over species, and there are two types of isoforms, drebrin A and drebrin E in mammalian such as rat and human. Drebrin has actin filament-binding activity and has drawn attention as a protein generally involved in biological phenomena related to intracellular actin cytoskeletal system including cell migration. Drebrin A is present specifically at neuron dendritic spines in adult brain and is considered to be related in its morphogenesis, synaptic transmitter function and plasticity. Drebrin A is reported to decrease in Alzheimer's disease, Down syndrome and aged brain, and it is suggested that drebrin A is related to decline of cognitive function.

This antibody specifically reacts with drebrin A among isoforms of drebrin.

Antigen : Synthetic peptide of the part of Drebrin A (FIKASDSGPSSS)

Purification : Purified with antigen peptide

Form : Lyophilized product from 1% BSA in PBS containing 0.05% NaN₃

How to use : 1.0 mL deionized water will be added to the product (The conc. comes up 50 µg /mL)

Stability : Lyophilized product, 5 years at 2 - 8 °C
: Solution, 2 years at -20 °C

Application : This antibody can be used for immunohistochemistry with frozen sections in concentration of 0.325 - 0.65 µg /mL.
: This antibody can be used for immunocytochemistry in concentration of 0.325 - 0.65 µg /mL.
: This antibody can be used for western blotting in concentration of 0.325 - 1.3 µg /mL.

Specificity : Reacts with rat and mouse Drebrin A.

Reference : 1. Shirao T. The roles of microfilament-associated proteins, drebrins, in brain morphogenesis: a review. *J Biochem (Tokyo)*. 1995 Feb;117(2):231-6.
2. Hayashi K, Ishikawa R, Ye LH, He XL, Takata K, Kohama K, Shirao T. Modulatory role of drebrin on the cytoskeleton within dendritic spines in the rat cerebral cortex. *J Neurosci*. 1996 Nov 15;16(22):7161-70.
3. Hayashi K, Shirao T. Change in the shape of dendritic spines caused by overexpression of drebrin in cultured cortical neurons. *J Neurosci*. 1999 May 15;19(10):3918-25.
4. Takahashi H, Sekino Y, Tanaka S, Mizui T, Kishi S, Shirao T. Drebrin-dependent actin clustering in dendritic filopodia governs synaptic targeting of postsynaptic density-95 and dendritic spine morphogenesis. *J Neurosci*. 2003 Jul 23;23(16):6586-95.
5. Aoki C, Sekino Y, Hanamura K, Fujisawa S, Mahadomrongkul V, Ren Y, Shirao T. Drebrin A is a postsynaptic protein that localizes in vivo to the submembranous surface of dendritic sites forming excitatory synapses. *J Comp Neurol*. 2005 Mar 21;483(4):383-402.
6. Kojima N, Shirao T. Synaptic dysfunction and disruption of postsynaptic drebrin-actin complex: a study of neurological disorders accompanied by cognitive deficits. *Neurosci Res*. 2007 May;58(1):1-5.
7. Sekino Y, Kojima N, Shirao T. Role of actin cytoskeleton in dendritic spine morphogenesis. *Neurochem Int*. 2007 Jul-Sep;51(2-4):92-104.

For Non-Clinical Research Use Only