IBL Data Sheet

Code No. 28079

Anti-Human
Dock7 (Y1118 Phosphorylated) Rabbit IgG Affinity Purify

Volume : 50 µg

Introduction : Small GTPase of Rho family is one of signaling factors which control alteration of cellular morphology, cell division and differentiation, and plays an important role in regulation of generation and organogenesis at an individual level. Its functions are strictly regulated and its dysfunction causes many diseases such as immunological disease or neurodegenerative disease.
Dedicator of cytokinesis (Dock) 7 is a Rho family small GTPase activating factor (or exchange factor) activating Rac1 and Cdc42 specifically of the Rho family small GTPase, and is widely expressed molecule. It is noted that Dock7 is an important factor for proliferation and differentiation of neurocytes or glial cells since it is more expressed especially in both of the central and peripheral nerve tissues.
ErbB2 which belongs to the EGF receptor family that is important to neurogenesis interacts with Dock 7 and phosphorylates the 1118th tyrosine of Dock7 directly and activates it. As ErbB2 is a gene responsible for breast cancer, it is also a target of anti-cancer drugs. Dock7 has attracted attention for its relation to breast cancer because it is a novel substrate of ErbB2.

Antigen : Synthetic peptide of the phosphorylated part of Human Dock7 (ETVPQL(pY)DFTET)

Purification : Purified with antigen peptide

Form : Lyophilized product from 1% BSA in PBS containing 0.05% NaN_3

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 western blotting in concentration of 1 - 5 µg /mL.

Specificity : Cross-reacts with rat and mouse.

Reference :

1. Côté JF, Vuori K. Identification of an evolutionarily conserved superfamily of DOCK180-related proteins with guanine nucleotide exchange activity. J Cell Sci. 2002 Dec 15;115(Pt 24):4901-13.
2. Miyamoto Y, Yamauchi J, Sanbe A, Tanoue A. Dock6, a Dock-C subfamily guanine nucleotide exchanger, has the dual specificity for Rac1 and Cdc42 and regulates neurite outgrowth. Exp Cell Res. 2007 Feb 15;313(4):791-804.
3. Yamauchi J, Miyamoto Y, Chan JR, Tanoue A. ErbB2 directly activates the exchange factor Dock7 to promote Schwann cell migration. J Cell Biol. 2008 Apr 21;181(2):351-65.

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