

Code No. 28057

**Anti-Human
Dock7 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. Meanwhile, it is known that Dock7 makes a complex with products of responsible gene for tuberous sclerosis (Pringle disease), TSC1/2, therefore it is suggested that the relation with intellectual decline caused by brain tumor or vascular fibroma of the vessels where much TSC1/2 are expressed.

There are proteins, called Dock6 and Dock8, very similar to Dock7 in human, however, their regulation systems are unknown yet.

Antigen : Synthetic peptide of a part of Human Dock7 (KELFALHPSPDEEE)

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 immunocytochemistry. The optimal dilution is 0.2 - 2 µg/mL, however, the dilution rate should be optimized by each laboratories.
: This antibody can be used for western blotting in concentration of 0.2 - 2 µg /mL.
: This antibody can be used for immunoprecipitation in concentration of 1 - 3 µg /test.

Specificity : Cross-reacts with rat.

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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