

## Dact2 Antibody

*Dact2: Dapper homolog 2, Dapper antagonist of beta-catenin 2*

**CATALOG No.: 4859**

### BACKGROUND:

The Wnt signaling cascade is a conserved process in multicellular animals that plays important roles during development and can contribute to cancer and other diseases. Many members of this pathway are also expressed in the postnatal tissues such as brain (reviewed in 1) One such protein is Dact2, a member of the Dact protein family that was initially identified through binding to Disheveled (Dvl), a cytoplasmic protein essential to Wnt signaling (2,3). Dact 2 is most prominent during the development of the thymus kidneys, and salivary gland (3). Dact2 is thought to play a role distinct from that of Dact1 with Dact2 having a greater impact on a b-catenin-independent process termed planar cell polarity/convergent-extension signaling (4). Furthermore, Dact2 but not Dact1 can inhibit Nodal signaling by promoting the endocytic degradation of TGF-b receptors (5). At least two isoforms of Dact2 are known to exist.

### SOURCE:

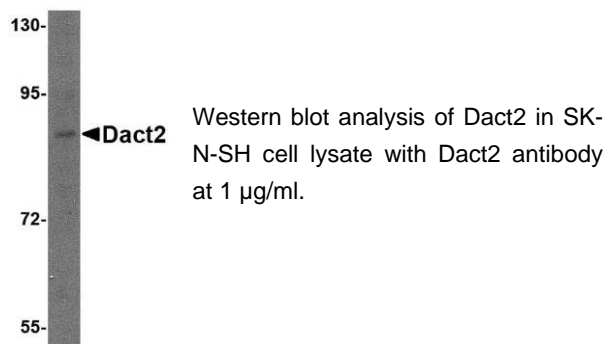
Rabbit polyclonal Dact2 antibody was raised against a 12 amino acid peptide from near the amino terminus of human DACT2 (GenBank accession no. NP\_999627).

### APPLICATION:

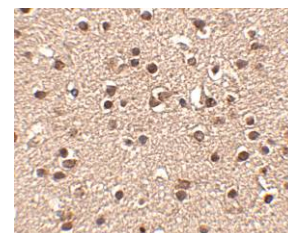
Dact2 antibody can be used for detection of Dact2 by Western blot at 1 – 2 µg/ml. (Optimal dilution should be determined by user.) SK-N-SH cell lysate can be used as positive control. Dact2 antibody is human, mouse and rat reactive. **For research use only.**

### STORAGE:

Dact2 antibody is supplied as immunoaffinity purified IgG in PBS containing 0.02% sodium azide. Store at 4°C, stable for one year.



Immunohistochemistry of Dact2 in human brain tissue with Dact2 antibody at 2.5 µg/ml.



### RELATED PRODUCTS:

Blocking Peptide, Catalog No. **4859P**.  
SK-N-SH Cell Lysate, Catalog No. **1220**.  
Dact3 Antibody, Catalog No. **4871**.

### REFERENCES:

1. Shimigori T, VanSant J, Paik E, et al. Members of the Wnt, Fz, and Frp gene families expressed in postnatal mouse cerebral cortex. *J. Comp. Neurol.* 2004; 473:496-510.
2. Cheyette BNR, Waxman JS, Miller JR, et al. Dapper, a Dishevelled-associated antagonist of beta-catenin and JNK signaling, is required for notochord formation. *Dev. Cell* 2002; 2:449-61.
3. Katoh M and Katoh M. Identification and characterization of human DAPPER1 and DAPPER2 genes in silico. *Int. J. Oncol.* 22:907-13.
4. Waxman JS, Hocking AM, Stoick CL, et al. Zebrafish DAPPER1 and DAPPER2 play distinct roles in Wnt-mediated developmental processes. *Development* 2004; 131:5909-21.
5. Zhang L, Zhou H, Su Y, et al. Zebrafish Dpr2 mesoderm induction by promoting degradation of nodal receptors. *Science* 2004; 306:114-7. (09-01D)