

DACT1 / DAPPER Antibody (aa725-775)

Rabbit Polyclonal Antibody Catalog # ALS15241

Specification

DACT1 / DAPPER Antibody (aa725-775) - Product Information

Application WB, IHC Primary Accession Q9NYF0

Reactivity Human, Mouse, Rat, Zebrafish, Chicken,

Xenopus Rabbit Polyclonal

90kDa KDa

Host Clonality Calculated MW

DACT1 / DAPPER Antibody (aa725-775) - Additional Information

Gene ID 51339

Other Names

Dapper homolog 1, hDPR1, Dapper antagonist of catenin 1, Hepatocellular carcinoma novel gene 3 protein, DACT1, DPR1, HNG3

Target/Specificity

Human DACT1

Reconstitution & Storage

Store at 4°C, stable for 6 months. For long term storage, aliquot and store at -20°C.

Precautions

DACT1 / DAPPER Antibody (aa725-775) is for research use only and not for use in diagnostic or therapeutic procedures.

DACT1 / DAPPER Antibody (aa725-775) - Protein Information

Name DACT1

Synonyms DPR1, HNG3

Function

Involved in regulation of intracellular signaling pathways during development. Specifically thought to play a role in canonical and/or non-canonical Wnt signaling pathways through interaction with DSH (Dishevelled) family proteins. The activation/inhibition of Wnt signaling may depend on the phosphorylation status. Proposed to regulate the degradation of CTNNB1/beta-catenin, thereby modulating the transcriptional activation of target genes of the Wnt signaling pathway. Its function in stabilizing CTNNB1 may involve inhibition of GSK3B activity. Promotes the membrane localization of CTNNB1. The cytoplasmic form can induce DVL2 degradation via a lysosome-dependent mechanism; the function is inhibited by PKA-induced binding to 14-3-3 proteins, such as YWHAB. Seems to be involved in morphogenesis at the primitive streak by



regulating VANGL2 and DVL2; the function seems to be independent of canonical Wnt signaling and rather involves the non- canonical Wnt/planar cell polarity (PCP) pathway (By similarity). The nuclear form may prevent the formation of LEF1:CTNNB1 complex and recruit HDAC1 to LEF1 at target gene promoters to repress transcription thus antagonizing Wnt signaling. May be involved in positive regulation of fat cell differentiation. During neuronal differentiation may be involved in excitatory synapse organization, and dendrite formation and establishment of spines.

Cellular Location

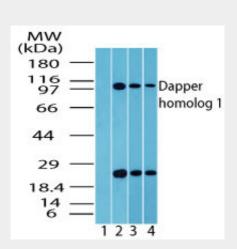
Cytoplasm. Nucleus. Synapse. Note=Shuttles between the nucleus and the cytoplasm. Seems to be nuclear in the absence of Wnt signaling and to translocate to the cytoplasm in its presence

DACT1 / DAPPER Antibody (aa725-775) - Protocols

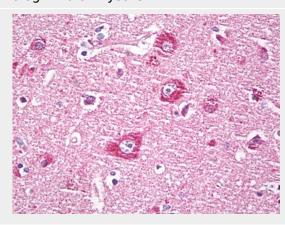
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

DACT1 / DAPPER Antibody (aa725-775) - Images



Western blot of Dapper homolog 1inbrain lysate.





Anti-DACT1 / DAPPER antibody IHC of human brain, cortex neurons.

DACT1 / DAPPER Antibody (aa725-775) - Background

Involved in regulation of intracellular signaling pathways during development. Specifically thought to play a role in canonical and/or non-canonical Wnt signaling pathways through interaction with DSH (Dishevelled) family proteins. The activation/inhibition of Wnt signaling may depend on the phosphorylation status. Proposed to regulate the degradation of CTNNB1/beta-catenin, thereby modulating the transcriptional activation of target genes of the Wnt signaling pathway. Its function in stabilizing CTNNB1 may involve inhibition of GSK3B activity. Promotes the membrane localization of CTNNB1. The cytoplasmic form can induce DVL2 degradation via a lysosome- dependent mechanism; the function is inhibited by PKA-induced binding to 14-3-3 proteins, such as YWHAB. Seems to be involved in morphogenesis at the primitive streak by regulating VANGL2 and DVL2; the function seems to be independent of canonical Wnt signaling and rather involves the non-canonical Wnt/planar cell polarity (PCP) pathway (By similarity). The nuclear form may prevent the formation of LEF1:CTNNB1 complex and recruit HDAC1 to LEF1 at target gene promoters to repress transcription thus antagonizing Wnt signaling. May be involved in positive regulation of fat cell differentiation. During neuronal differentiation may be involved in excitatory synapse organization, and dendrite formation and establishment of spines.

DACT1 / DAPPER Antibody (aa725-775) - References

Heilig R., et al. Nature 421:601-607(2003). Li W.B., et al. Submitted (JAN-2003) to the EMBL/GenBank/DDBJ databases. Gong S., et al. Zhongguo Sheng Wu Hua Xue Yu Fen Zi Sheng Wu Xue Bao 17:280-287(2001). Cheyette B.N.R., et al. Dev. Cell 2:449-461(2002). Yau T.O., et al. Oncogene 24:1607-1614(2005).