Datasheet for ABIN967363

anti-WNT16 antibody

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Overview

Quantity:	50 µg
Target:	WNT16
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This WNT16 antibody is un-conjugated
Application:	Western Blotting (WB)

Product Details

Brand:	BD Pharmingen™
Immunogen:	Human WNT16 Recombinant Protein
Clone:	F4-1582
Isotype:	IgG2b kappa
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	WNT16
Alternative Name:	Wnt16 (WNT16 Products)
Background:	The Wnt gene family comprises a large group of signaling proteins involved in developmental pathways in vertebrates, Drosophilia, C. elegans and other organisms. The Wnt genes were first discovered in mouse (called int-1) and later in Drosophilia (called wingless, or wg) where the signaling pathways were unravelled. The Wnt proteins are involved in various developmental processes including embryonic induction, generation of cell polarity and the specification of cell fate. The vertebrate Wnt glycoproteins number at least 16 members and initiate signaling by being secreted and a subset of these glycoproteins bind to a class of receptors, called Frizzled, of which 11 have been identified. Stimulation of the Wnt pathway causes the phosphorylation of Dishevelled, which inhibits glycogen synthase kinase -3beta (GSK3beta) and allows beta-catenin to accumulate in the cytosol. beta-catenin then translocates to the nucleus to form a complex with Tcf/LEF family of transcription factors to activate transcription. In unstimulated cells, beta-catenin forms a complex with the proteins Axin, adenomatous polyposis coli (APC), (GSK3ß) and is unstable. Studies have shown that some members of this pathway become mutated in human cancers, such as colon carcinoma and melanoma. Futhermore, studies on the WNT-16 gene, have shown that it is activated by the E2A-Pbx fusion product in acute lymphoblastoid leukemia. Wnt16 has a predicted molecular weight of 40 kDa (SWISS-PROT:Q9UBV4).
Molecular Weight:	40 kDa
Pathways:	WNT Signaling

Application Details

Application Notes:	Applications include western blot analysis (0.063 - 0.25 µg/ml). 697 cell lysate [50 µg (1 µg/µl)] is provided as a positive control (51-9000020).
Comment:	Related Products: ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	0.5 mg/mL
Buffer:	Aqueous buffered solution containing ≤0.09 % sodium azide.

Handling

Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Store the undiluted antibody at 4°C. Store 697 cell lysate at -20°C.

Publications

Product cited in:

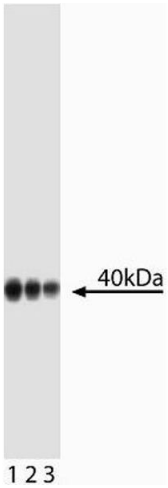
Taipale, Beachy: "The Hedgehog and Wnt signalling pathways in cancer." in: **Nature**, Vol. 411, Issue 6835, pp. 349-54, (2001) (PubMed).

Polakis: "Wnt signaling and cancer." in: **Genes & development**, Vol. 14, Issue 15, pp. 1837-51, (2000) (PubMed).

McWhirter, Neuteboom, Wancewicz, Monia, Downing, Murre: "Oncogenic homeodomain transcription factor E2A-Pbx1 activates a novel WNT gene in pre-B acute lymphoblastoid leukemia." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 96, Issue 20, pp. 11464-9, (1999) (PubMed).

Wodarz, Nusse: "Mechanisms of Wnt signaling in development." in: **Annual review of cell and developmental biology**, Vol. 14, pp. 59-88, (1999) (PubMed).

Cadigan, Nusse: "Wnt signaling: a common theme in animal development." in: **Genes & development**, Vol. 11, Issue 24, pp. 3286-305, (1998) (PubMed).



Western Blotting

Image 1. Western blot analysis of Wnt16. Lysate from 697 cells was probed with anti-Wnt 16 (clone F4-1582, ABIN967363) at concentrations of 0.25 (lane 1), 0.125 (lane 2), and 0.063 myg/ml (lane 3). Wnt16 is identified as a band of ~40 kDa.