Wnt3a (Wingless-type MMTV (Mouse Mammary Tumor Virus) Integration Site Family Member)

Catalog number

W3011-02C

Supplier

United States Biological

The Wnt family includes several secreted glycoproteins that play important roles in animal development (1). There are 19 Wnt genes in the human genome that encode functionally distinct Wnt proteins (2). Wnt members bind to the Frizzled family of seven-pass transmembrane proteins and activate several signaling pathways (3). The canonical Wnt/β-catenin pathway also requires a coreceptor from the low-density lipoprotein receptor family (4). Aberrant activation of Wnt signaling pathways is involved in several types of cancers (5). Wnt3a protein is palmitoylated and can function as a growth factor for hematopoietic stem cells (6). Although functionally distinct, Wnt3a shows high homology to Wnt3 (7).

Applications

Suitable for use in Western Blot. Other applications not tested.

Recommended Dilution

Western Blot (transfected): 1:1000.
Optimal dilutions to be determined by the researcher.

Storage and Stability

May be stored at 4°C for short-term only. For long-term storage, aliquot and store at -20°C. Aliquots are stable for 12 months at -20°C. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Further dilutions can be made in assay buffer.

Immunogen

Synthetic peptide corresponding to residues surrounding Asp294 of human Wnt3a. Species sequence homology: human (100%) Epitope: Central

Formulation

Supplied as a liquid in 10mM sodium HEPES, pH 7.5, 150mM sodium chloride, 0.1mg/ml BSA, 50% glycerol.

Purity

Purified by Protein A and peptide affinity chromatography.

Specificity

Recognizes transfected human Wnt3a protein in L cells and the conditioned medium from L/Wnt3a cells. Based on homology, it is expected to also recognize Wnt3. Species Crossreactivity: mouse.

Product Type

Pab

Source

human

Isotype

IgG

Grade

Affinity Purified

Applications

WB

Crossreactivity

Mo

Storage

-20°C

MW

42

Reference

1. Cadigan, K.M. and Nusse, R. (1997) Genes Dev. 11, 3286-3305. 2. Moon, R.T. et al. (1997) Trends Genet. 13, 157-162. 3. Kohn, A.D. and Moon, R.T. (2004) Cell Calcium 38, 439-446. 4. Logan, C.Y. and Nusse, R. (2004) Annu. Rev. Cell Dev. Biol. 20, 781-810. 5. Giles, R.H. et al. (2003) Biochim. Biophys. Acta. 1653, 1-24. 6. Willert, K. et al. (2003) Nature 423, 448-52. 7. Katoh, M. (2001) Int. J. Oncol. 19, 977-82.