

Datasheet for ABIN392494

anti-MYLK3 antibody (N-Term)

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Overview

Quantity:	400 µL
Target:	MYLK3
Binding Specificity:	AA 40-69, N-Term
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This MYLK3 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

Product Details

Immunogen:	This MYLK3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 40-69 amino acids from the N-terminal region of human MYLK3.
Clone:	RB3066
Isotype:	Ig Fraction
Purification:	This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Target Details

Target:	MYLK3
Alternative Name:	MYLK3 (MYLK3 Products)

Target Details

Background:	MLCK, a member of the Ser/Thr protein kinase family, is a calcium/calmodulin-dependent enzyme responsible for smooth muscle contraction via phosphorylation of a specific serine in the N-terminus of myosin light chains (MLC), an event that facilitates myosin interaction with actin filaments. It is a central determinant in the development of vascular permeability and tissue edema formation. In the nervous system it has been shown to control the growth initiation of astrocytic processes in culture and to participate in transmitter release at synapses formed between cultured sympathetic ganglion cells. MLCK acts as a critical participant in signaling sequences that result in fibroblast apoptosis. Smooth muscle and non-muscle isozymes are expressed in a wide variety of adult and fetal tissues and in cultured endothelium with qualitative expression appearing to be neither tissue- nor development-specific. Non-muscle isoform 2 is the dominant splice variant expressed in various tissues. The Telokin isoform, which binds calmodulin, has been found in a wide variety of adult and fetal tissues. MLCK is probably down-regulated by phosphorylation. The protein contains 1 fibronectin type III domain and 9 immunoglobulin-like C2-type domains.
Molecular Weight:	88393
Gene ID:	91807
NCBI Accession:	NP_872299
UniProt:	Q32MK0
Pathways:	Regulation of Muscle Cell Differentiation

Application Details

Application Notes:	WB: 1:1000. WB: 1:1000. IHC-P: 1:50~100. IHC-P: 1:50~100
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	Purified polyclonal antibody supplied in PBS with 0.09 % (W/V) sodium azide.
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

Handling

Storage Comment: Maintain refrigerated at 2-8 °C for up to 6 months. For long term storage store at -20 °C in small aliquots to prevent freeze-thaw cycles.

Expiry Date: 6 months

Publications

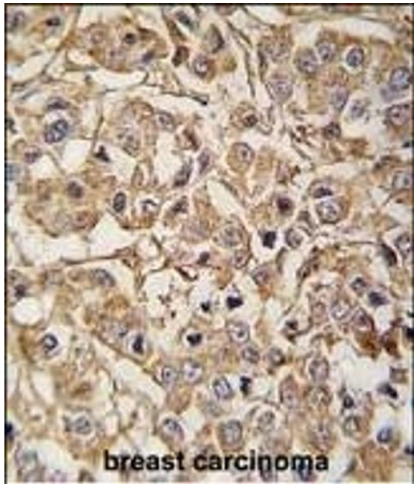
Product cited in: Heydasch, Kessler, Warnke, Eschrich, Scholz, Bigl: "Functional diversity of PFKFB3 splice variants in glioblastomas." in: **PloS one**, Vol. 16, Issue 7, pp. e0241092, (2021) ([PubMed](#)).

Lee, Lee, Yun, Jang, Kang, Kim, Choi, Park: "Silver nanoparticles affect glucose metabolism in hepatoma cells through production of reactive oxygen species." in: **International journal of nanomedicine**, Vol. 11, pp. 55-68, (2016) ([PubMed](#)).

Reddy, Fernandes, Deshpande, Weisberg, Inguilizian, Abdel-Wahab, Kung, Levine, Griffin, Sattler: "The JAK2V617F oncogene requires expression of inducible phosphofructokinase/fructose-bisphosphatase 3 for cell growth and increased metabolic activity." in: **Leukemia**, Vol. 26, Issue 3, pp. 481-9, (2012) ([PubMed](#)).

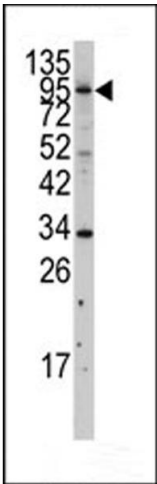
Ando, Uehara, Kogure, Asano, Nakajima, Abe, Kawauchi, Tanaka: "Interleukin 6 enhances glycolysis through expression of the glycolytic enzymes hexokinase 2 and 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase-3." in: **Journal of Nippon Medical School = Nippon Ika Daigaku zasshi**, Vol. 77, Issue 2, pp. 97-105, (2010) ([PubMed](#)).

Yamasaki, Hayashi, Okamoto, Osanai, Lee: "Insulin-independent promotion of chemically induced hepatocellular tumor development in genetically diabetic mice." in: **Cancer science**, Vol. 101, Issue 1, pp. 65-72, (2010) ([PubMed](#)).



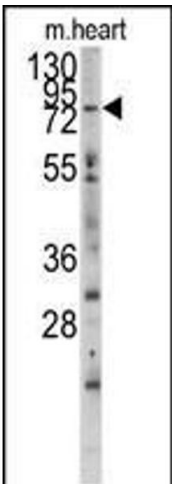
Immunohistochemistry (Paraffin-embedded Sections)

Image 1. Formalin-fixed and paraffin-embedded human breast carcinoma tissue reacted with MYLK3 antibody (N-term) (ABIN392494 and ABIN2837985) , which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry, clinical relevance has not been evaluated.



Western Blotting

Image 2. Western blot analysis of anti-MYLK3 Antibody (N-term) (ABIN392494 and ABIN2837985) in cell line lysates (35 µg/lane). MYLK3 (arrow) was detected using the purified Pab.



Western Blotting

Image 3. Western blot analysis of anti-MYLK3 Antibody (N-term) (ABIN392494 and ABIN2837985) in mouse heart tissue lysates (35 µg/lane). MYLK3(arrow) was detected using the purified Pab.

Please check the [product details page](#) for more images. Overall 4 images are available for ABIN392494.