

## Anti-MYLK3 Polyclonal Antibody

## Product Details

Ig Type:	IgG
Reactivity:	Mouse (predicted:Human,Rat,Dog,Cow,Horse,Rabbit,Sheep)
Molecular Weight:	Theoretical: 98 kDa. Actual: 100 kDa.
Purification:	Protein A purified

## Applications

Verified Activity:	1. Sample: Bone (Mouse) Lysate at 40 µg Primary: Anti-MYLK3 (TMAB-09161) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 98 kD Observed band size: 100 kD 2. 25 µg total protein per lane of various lysates (see on figure) probed with MYLK3 polyclonal antibody, unconjugated (TMAB-09161) at 1:1000 dilution and 4°C overnight incubation. Followed by conjugated secondary antibody incubation at r. T. for 60 min.
Application:	WB
Recommended	WB: 1:500-2000

## Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

## Antigen Details

Immunogen:	KLH conjugated synthetic peptide: human MYLK3
Antigen Species:	Human
Gene ID:	91807
Uniprot ID:	Q32MK0

## Research Background

The Ca<sup>2+</sup>/calmodulin-dependent protein kinases (CaM kinases) are a structurally related subfamily of serine/threonine kinases that includes CaMKI, CaMKII, CaMKIV and Myosin light chain kinases (MYLKs, also designated MLCKs). The MYLK kinases phosphorylate Myosin regulatory light chains to catalyze Myosin interaction with Actin filaments, resulting in contractile activity. MYLK3 (Myosin light chain kinase 3) is a 795 amino acid cardiac-specific protein that contains one protein kinase domain and belongs to the protein kinase superfamily. Like other MYLK kinases, MYLK3 is thought to play a role in smooth muscle contraction, specifically using magnesium as a cofactor to catalyze the ATP-dependent phosphorylation of Myosin light chain proteins. Additionally, MYLK3 may regulate sarcomere assembly in heart tissue, possibly mediating proper heart function.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481