

## Thor Antibody

Catalog No: #SAB385



Package Size: #SAB385-1 50ul #SAB385-2 100ul

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## Description

Product Name	Thor Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were produced by immunizing rabbits with synthetic peptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific peptide.
Applications	Custom antibody
Species Reactivity	Fruit fly
Immunogen Type	Peptide-KLH
Target Name	Thor
Other Names	Eukaryotic translation initiation factor 4E-binding protein 4E-BP 4E-binding protein Thor dThor
Accession No.	uniprot:Q9XZ56
Calculated MW	13KDa
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), pH 7.4, 150mM NaCl, 0.02% sodium azide and 60% glycerol.
Storage	Store at -20°C for long term preservation (recommended). Store at 4°C for short term use.

## Application Details

Western blotting: 1:500~1:1000,

Immunohistochemistry: 1:50~1:110

## Background

Repressor of translation initiation that regulates eIF4E1 activity by preventing its assembly into the eIF4F complex (PubMed:11389445, PubMed:19804760, PubMed:25702871). Hypophosphorylated form competes with eIF4G1 and strongly binds to eIF4E1, leading to repress translation (PubMed:25702871). In contrast, hyperphosphorylated form dissociates from eIF4E1, allowing interaction between eIF4G1 and eIF4E1, leading to initiation of translation (PubMed:25702871). Acts as a regulator of various biological processes, such as innate immunity, cell growth or synaptic transmission (PubMed:10811906, PubMed:11389445, PubMed:27525480). Acts downstream of phosphoinositide-3-kinase (PI3K) to regulate cell growth (PubMed:11389445). Extends lifespan upon dietary restriction by regulating the mitochondrial translation (PubMed:19804760). Acts as a regulator of lifespan in response to cold by regulating the mitochondrial translation (PubMed:28827349). Acts as a negative regulator of presynaptic release of neurotransmitter in motor neurons: Thor expression is induced in response to insulin signaling, leading to prevent of translation of complexin (cpx), a protein known to regulate the exocytosis of synaptic vesicles (PubMed:27525480). Acts as a negative regulator of synaptic strength at the neuromuscular junction: Thor expression in response to acute fasting prevents translation, thereby suppressing retrograde synaptic enhancement (PubMed:27916456).

**Note:** This product is for in vitro research use only and is not intended for use in humans or animals.