



# Rabbit anti-Arabidopsis thaliana MPK3 (N-term) Polyclonal Antibody (CABT-Z097R)

This product is for research use only and is not intended for diagnostic use.

# PRODUCT INFORMATION

Immunogen	Antibodies were produced by immunizing animals with a GST-fusion protein containing the N-terminal region of arabidopsis thaliana MPK3.
Isotype	IgG
Source/Host	Rabbit
Species Reactivity	Arabidopsis thaliana
Purification	Antigen affinity purification
Conjugate	Unconjugated
Applications	WB Recommended dilution: WB: 1:500-1:2,000 (detect endogenous protein*)
Molecular Weight	43 kDa
Preparation	Rabbit polyclonal antibodies were produced by immunizing animals with a GST-fusion protein containing the N-terminal region of arabidopsis thaliana MPK3 (At3g45640).
Format	Liquid
Concentration	Lot specific
Size	100 μΙ
Buffer	Supplied in 1 x PBS (pH 7.4), 100 ug/ml BSA, 40% Glycerol, 0.01% NaN3.
Preservative	0.01% NaN3

45-1 Ramsey Road, Shirley, NY 11967, USA

Email: info@creative-diagnostics.com

Tel: 1-631-624-4882 Fax: 1-631-938-8221

Storage	Store at -20°C. Stable for 6 months from date of receipt.
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Ship Wet ice

### **BACKGROUND**

#### Introduction

MITOGEN-ACTIVATED PROTEIN KINASE 3 (MPK3) is a mitogen-activated kinase whose mRNA levels increase in response to touch, cold, salinity stress and chitin oligomers. MPK3 is involved in oxidative stress-mediated signaling cascade (such as ozone). MPK3 is also involved in the innate immune MAP kinase signaling cascade (MEKK1, MKK4/MKK5 and MPK3/MPK6) downstream of bacterial flagellin receptor FLS2. MPK3 may be involved in hypersensitive response (HR)-mediated signaling cascade. MPK3 may phosphorylate regulators of WRKY transcription factors. MPK3 mediates the phosphorylation of VIP1 and subsequent stress genes transcription in response to Agrobacterium. MKK9-MPK3/MPK6 module phosphorylates and activates EIN3, leading to the promotion of EIN3-mediated transcription in ethylene signaling. MPK3/MPK6 cascade regulates camalexin synthesis through transcriptional regulation of the biosynthetic genes after pathogen infection. YDA-MKK4/MKK5-MPK3/MPK6 module regulates stomatal cell fate before the guard mother cell (GMC) is specified. This MAPK cascade also functions downstream of the ER receptor in regulating coordinated local cell proliferation, which shapes the morphology of plant organs.

Keywords

ATMAPK3;ATMPK3;MITOGEN-ACTIVATED PROTEIN KINASE 3;MPK3

# **GENE INFORMATION**

Gene Name	MPK3
Entrez Gene ID	<u>823706</u>
UniProt ID	Q39023