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Datasheet for ABIN6258157

## anti-MAPK12 antibody (Internal Region)

### 1 Image

#### Overview

Quantity:	100 µL
Target:	MAPK12
Binding Specificity:	Internal Region
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This MAPK12 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunofluorescence (IF), Immunocytochemistry (ICC)

#### Product Details

Immunogen:	A synthesized peptide derived from human MAPK12, corresponding to a region within the internal amino acids.
Isotype:	IgG
Specificity:	MAPK12 Antibody detects endogenous levels of total MAPK12.
Predicted Reactivity:	Pig,Bovine,Horse,Sheep,Rabbit,Dog,Xenopus
Purification:	The antiserum was purified by peptide affinity chromatography using SulfoLink™ Coupling Resin (Thermo Fisher Scientific).

#### Target Details

Target:	MAPK12
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## Target Details

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Alternative Name: MAPK12 ([MAPK12 Products](#))

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Background: Description: Serine/threonine kinase which acts as an essential component of the MAP kinase signal transduction pathway. MAPK12 is one of the four p38 MAPKs which play an important role in the cascades of cellular responses evoked by extracellular stimuli such as proinflammatory cytokines or physical stress leading to direct activation of transcription factors such as ELK1 and ATF2. Accordingly, p38 MAPKs phosphorylate a broad range of proteins and it has been estimated that they may have approximately 200 to 300 substrates each. Some of the targets are downstream kinases such as MAPKAPK2, which are activated through phosphorylation and further phosphorylate additional targets. Plays a role in myoblast differentiation and also in the down-regulation of cyclin D1 in response to hypoxia in adrenal cells suggesting MAPK12 may inhibit cell proliferation while promoting differentiation. Phosphorylates DLG1. Following osmotic shock, MAPK12 in the cell nucleus increases its association with nuclear DLG1, thereby causing dissociation of DLG1-SFPQ complexes. This function is independent of its catalytic activity and could affect mRNA processing and/or gene transcription to aid cell adaptation to osmolarity changes in the environment. Regulates UV-induced checkpoint signaling and repair of UV-induced DNA damage and G2 arrest after gamma-radiation exposure. MAPK12 is involved in the regulation of SLC2A1 expression and basal glucose uptake in L6 myotubes, and negatively regulates SLC2A4 expression and contraction-mediated glucose uptake in adult skeletal muscle. C-Jun (JUN) phosphorylation is stimulated by MAPK14 and inhibited by MAPK12, leading to a distinct AP-1 regulation. MAPK12 is required for the normal kinetochore localization of PLK1, prevents chromosomal instability and supports mitotic cell viability. MAPK12-signaling is also positively regulating the expansion of transient amplifying myogenic precursor cells during muscle growth and regeneration.

Gene: MAPK12

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Molecular Weight: ?42 kDa

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Gene ID: 6300

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UniProt: [P53778](#)

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Pathways: [MAPK Signaling](#), [Neurotrophin Signaling Pathway](#), [Regulation of Muscle Cell Differentiation](#), [Hepatitis C](#), [BCR Signaling](#), [S100 Proteins](#)

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## Application Details

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Application Notes: WB 1:500-1:2000, IF/ICC 1:100-1:500, ELISA(peptide) 1:20000-1:40000

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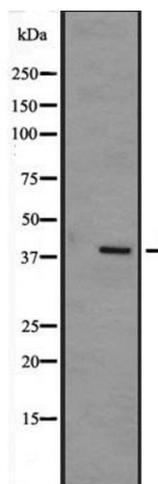
Restrictions: For Research Use only

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## Handling

Format:	Liquid
Concentration:	1 mg/mL
Buffer:	Rabbit IgG in phosphate buffered saline, pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.
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:	-20 °C
Expiry Date:	12 months

## Images



### Western Blotting

**Image 1.** Western blot analysis of MAPK12 expression in mouse muscle tissue lysate. The lane on the left is treated with the antigen-specific peptide.