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MAPK15 Antibody
Mouse Monoclonal Antibody (Mab)
Catalog # AM1855b

Specification

MAPK15 Antibody - Product Information

Application	IF, WB,E
Primary Accession	O8TD08
Other Accession	NP_620590.2
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1,K
Calculated MW	59832

MAPK15 Antibody - Additional Information

Gene ID 225689

Other Names
Mitogen-activated protein kinase 15, MAP kinase 15, MAPK 15, Extracellular signal-regulated kinase 7, ERK-7, Extracellular signal-regulated kinase 8, ERK-8, MAPK15, ERK7, ERK8

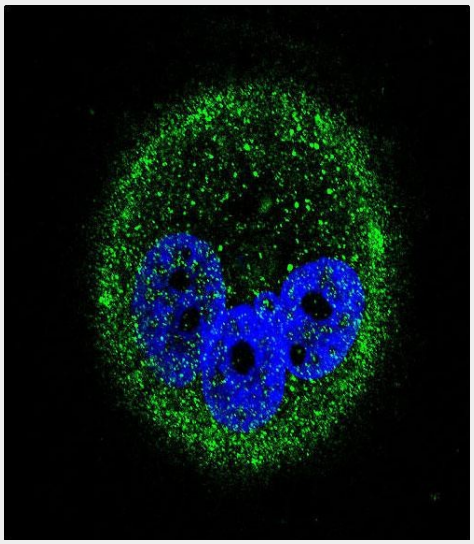
Target/Specificity
This MAPK15 monoclonal antibody is generated from mouse immunized with MAPK15 recombinant protein.

Dilution
IF~~1:10~50
WB~~1:500~1000

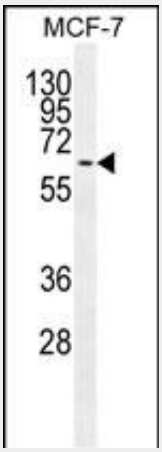
Format
Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

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

Precautions
MAPK15 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.



Confocal immunofluorescent analysis of MAPK15 Antibody (Cat#AM1855b) with MCF-7 cell followed by Alexa Fluor® 488-conjugated goat anti-mouse IgG (green). DAPI was used to stain the cell nuclear (blue).



MAPK15 Antibody (Cat. #AM1855b) western blot analysis in MCF-7 cell line lysates (35µg/lane).This demonstrates the MAPK15 antibody detected the MAPK15 protein (arrow).

MAPK15 Antibody - Background

In vitro, phosphorylates MBP.

MAPK15 Antibody - Protein Information

Name MAPK15 (HGNC:24667)

Function
Atypical MAPK protein that regulates several process such as autophagy, ciliogenesis, protein trafficking/secretion and genome integrity, in a kinase activity-dependent manner (PubMed:22948227, PubMed:24618899, PubMed:29021280, PubMed:21847093, PubMed:20733054). Controls both, basal and starvation-induced autophagy throught its interaction with GABARAP, MAP1LC3B and GABARAPL1 leading to autophagosome formation, SQSTM1 degradation and reduced MAP1LC3B inhibitory phosphorylation (PubMed:22948227). Regulates primary cilium formation and the localization of ciliary proteins involved in cilium structure, transport, and signaling (PubMed:29021280). Prevents the relocation of the sugar-adding enzymes from the Golgi to the endoplasmic reticulum, thereby restricting the production of sugar- coated proteins (PubMed:24618899). Upon amino-acid starvation, mediates transitional endoplasmic reticulum site disassembly and inhibition of secretion (PubMed:21847093). Binds to chromatin leading to MAPK15 activation and interaction with PCNA, that which protects genomic integrity by inhibiting MDM2-mediated degradation of PCNA (PubMed:<a href="http://www.uniprot.org/c

itations/20733054"
target="_blank">20733054).
Regulates DA transporter (DAT) activity and
protein expression via activation of RhoA
(PubMed:<a href="http://www.uniprot.org/c
itations/28842414"
target="_blank">28842414). In
response to H(2)O(2) treatment
phosphorylates ELAVL1, thus preventing it
from binding to the PDCD4 3'UTR and
rendering the PDCD4 mRNA accessible to
miR-21 and leading to its degradation and
loss of protein expression (PubMed:<a href
="http://www.uniprot.org/citations/2659552
6" target="_blank">26595526). Also
functions in a kinase activity-independent
manner as a negative regulator of growth
(By similarity). Phosphorylates in vitro FOS
and MBP (PubMed:<a href="http://www.uni
prot.org/citations/11875070"
target="_blank">11875070,
PubMed:<a href="http://www.uniprot.org/ci
tations/16484222"
target="_blank">16484222,
PubMed:<a href="http://www.uniprot.org/ci
tations/20638370"
target="_blank">20638370,
PubMed:<a href="http://www.uniprot.org/ci
tations/19166846"
target="_blank">19166846). During
oocyte maturation, plays a key role in the
microtubule organization and meiotic cell
cycle progression in oocytes, fertilized eggs,
and early embryos (By similarity). Interacts
with ESRRA promoting its re-localization
from the nucleus to the cytoplasm and then
prevents its transcriptional activity
(PubMed:<a href="http://www.uniprot.org/c
itations/21190936"
target="_blank">21190936).

Cellular Location

Cytoplasm, cytoskeleton, cilium basal body.
Cell junction, tight junction. Cytoplasm,
cytoskeleton, microtubule organizing
center, centrosome, centriole Cytoplasmic
vesicle, autophagosome. Golgi apparatus.
Nucleus. Cytoplasm. Cytoplasm,
cytoskeleton, spindle
{ECO:0000250|UniProtKB:Q80Y86}.
Note=Co-localizes to the cytoplasm only in
presence of ESRRA (PubMed:21190936)
Translocates to the nucleus upon activation
(PubMed:20638370). At prometaphase I,
metaphase I (MI), anaphase I, telophase I,
and metaphase II (MII) stages, is stably
detected at the spindle (By similarity).

{ECO:0000250|UniProtKB:Q80Y86,
ECO:0000269|PubMed:20638370,
ECO:0000269|PubMed:21190936}

Tissue Location
Widely expressed with a maximal expression in lung and kidney.

MAPK15 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture