

MAPK15 Antibody (N-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7554a

Specification

MAPK15 Antibody (N-term) - Product Information

Application	WB, IHC-P,E
Primary Accession	Q8TD08
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	32-61

MAPK15 Antibody (N-term) - 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 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 32-61 amino acids from the N-terminal region of human MAPK15.

Dilution

WB~~1:1000
IHC-P~~1:10~50

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation 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 (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

MAPK15 Antibody (N-term) - 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:[20733054](#), PubMed:[21847093](#), PubMed:[22948227](#), PubMed:[24618899](#), PubMed:[29021280](#)). Controls both, basal and starvation-induced autophagy through 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:[20733054](#)). Regulates DA transporter (DAT) activity and protein expression via activation of RhoA (PubMed:[28842414](#)). In response to H₂O₂ 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:[26595526](#)). Also functions in a kinase activity-independent manner as a negative regulator of growth (By similarity). Phosphorylates in vitro FOS and MBP (PubMed:[11875070](#), PubMed:[16484222](#), PubMed:[19166846](#), PubMed:[20638370](#)). 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:[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.

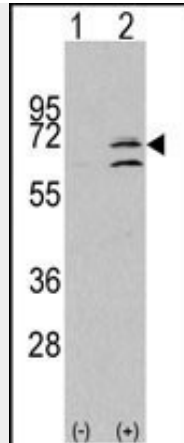
MAPK15 Antibody (N-term) - Protocols

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

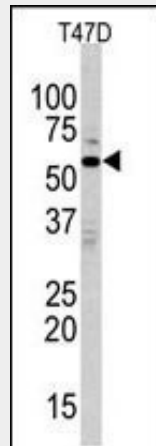
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

MAPK15 Antibody (N-term) - Images

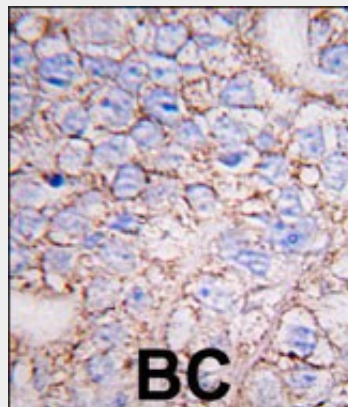




Western blot analysis of ERK8 (arrow) using rabbit polyclonal ERK8 Antibody (N-term) (Cat.#AP7554a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the MAPK15 gene (Lane 2) (Origene Technologies).



Western blot analysis of anti-ERK8 Antibody (N-term) (Cat.#AP7554a) in T47D cell line lysates (35ug/lane). ERK8 (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human breast carcinoma tissue reacted with ERK8 antibody (N-term)(Cat.#AP7554a), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

MAPK15 Antibody (N-term) - Background

The ERKs are a subfamily of the MAPKs that have been implicated in cell growth and

differentiation. Extracellular signal-regulated kinase 8 (Erk8) is a large MAP kinase whose activity is controlled by serum and the c-Src non-receptor tyrosine kinase. ERK8 down-regulates transactivation of the glucocorticoid receptor through Hic-5 and can negatively regulate transcriptional co-activation of androgen receptor and GRalpha by Hic-5 in a kinase-independent manner, suggesting a broader role for ERK8 in the regulation of nuclear receptors beyond estrogen receptor alpha. Erk8 is a novel effector of RET/PTC3 and, therefore, RET biological functions.

MAPK15 Antibody (N-term) - References

Saelzler, M.P., J. Biol. Chem. 281 (24), 16821-16832 (2006)
Iavarone, C., J. Biol. Chem. 281 (15), 10567-10576 (2006)
Klevernic, I.V., Biochem. J. 394 (PT 1), 365-373 (2006)
Suzuki, Y., Genome Res. 14 (9), 1711-1718 (2004)

MAPK15 Antibody (N-term) - Citations

- [A chromatin-bound kinase, ERK8, protects genomic integrity by inhibiting HDM2-mediated degradation of the DNA clamp PCNA.](#)