

Datasheet for ABIN754183
anti-MAP2K5 antibody (AA 251-350)[Go to Product page](#)**1** Validation**3** Images**2** Publications

Overview

Quantity:	100 µL
Target:	MAP2K5
Binding Specificity:	AA 251-350
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This MAP2K5 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunofluorescence (Cultured Cells) (IF (cc)), Immunofluorescence (Paraffin-embedded Sections) (IF (p)), Immunohistochemistry (Paraffin- embedded Sections) (IHC (p)), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Immunogen:	KLH conjugated synthetic peptide derived from human MEK5
Isotype:	IgG
Cross-Reactivity:	Human, Mouse, Rat
Predicted Reactivity:	Dog,Cow,Pig,Horse,Chicken,Rabbit
Purification:	Purified by Protein A.

Target Details

Target:	MAP2K5
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Target Details

Alternative Name: MEK5 ([MAP2K5 Products](#))

Background: Synonyms: MEK5, MAPKK5, Dual specificity mitogen-activated protein kinase kinase 5, MAPK/ERK kinase 5, MEK 5, MAP2K5, MAP kinase kinase 5

Background: Serine/threonine kinase which acts as an essential component of the MAP kinase signal transduction pathway. Plays an important role in the cascades of cellular responses evoked by changes in the environment. Mediates signaling for determination of cell fate such as differentiation and survival. Plays a crucial role in the apoptosis signal transduction pathway through mitochondria-dependent caspase activation. MAP3K5/ASK1 is required for the innate immune response, which is essential for host defense against a wide range of pathogens. Mediates signal transduction of various stressors like oxidative stress as well as by receptor-mediated inflammatory signals, such as the tumor necrosis factor (TNF) or lipopolysaccharide (LPS). Once activated, acts as an upstream activator of the MKK/JNK signal transduction cascade and the p38 MAPK signal transduction cascade through the phosphorylation and activation of several MAP kinase kinases like MAP2K4/SEK1, MAP2K3/MKK3, MAP2K6/MKK6 and MAP2K7/MKK7. These MAP2Ks in turn activate p38 MAPKs and c-jun N-terminal kinases (JNKs). Both p38 MAPK and JNKs control the transcription factors activator protein-1 (AP-1).

Gene ID: 5607

UniProt: [Q13163](#)

Pathways: [MAPK Signaling](#), [Neurotrophin Signaling Pathway](#)

Application Details

Application Notes: WB 1:300-5000
ELISA 1:500-1000
IHC-P 1:200-400
IHC-F 1:100-500
IF(IHC-P) 1:50-200
IF(IHC-F) 1:50-200
IF(ICC) 1:50-200

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 1 µg/µL

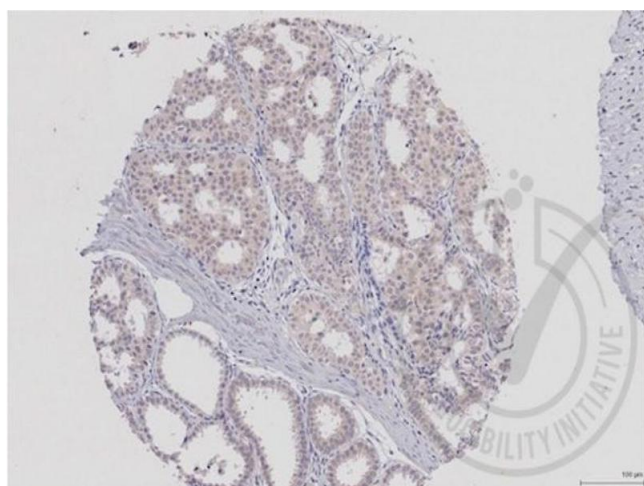
Handling

Buffer:	0.01M TBS(pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol.
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.
Expiry Date:	12 months

Publications

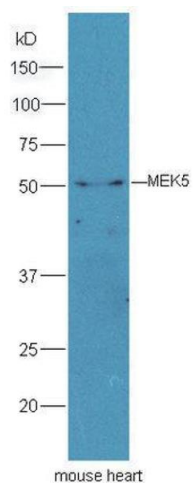
Product cited in:	Chen, Hou, Ye, Chen, Cui, Tian, Li, Liu: "MicroRNA-143 regulates adipogenesis by modulating the MAP2K5-ERK5 signaling." in: Scientific reports , Vol. 4, pp. 3819, (2014) (PubMed).
	Li, Dong, Wei, Wang, Zhang, Li: "Fatty acid synthase mediates the epithelial-mesenchymal transition of breast cancer cells." in: International journal of biological sciences , Vol. 10, Issue 2, pp. 171-80, (2014) (PubMed).

Images



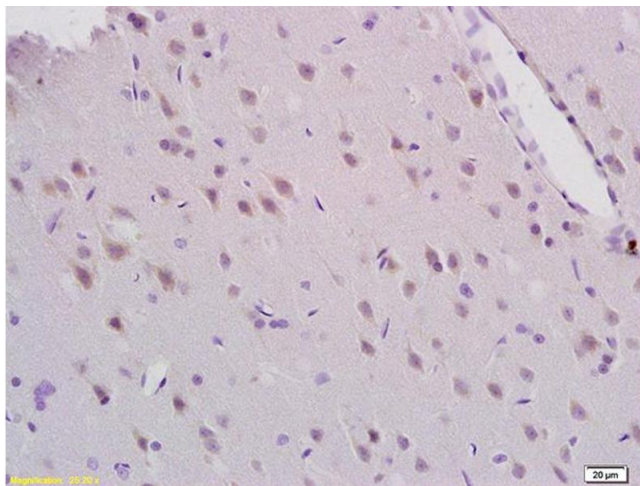
Immunohistochemistry

Image 1. Independently Validated Antibody, image provided by Science Direct, badge number 029644: Formalin-fixed and paraffin embedded human breast myoepithelial and glandular tissue labeled with Anti-MEK5 Polyclonal Antibody, Unconjugated (ABIN754183) at 1:250 followed by conjugation to the secondary antibody and DAB staining



Western Blotting

Image 2. Mouse heart lysates probed with Rabbit Anti-MEK5 Antibody, Unconjugated at 1:5000 for 90 min at 37°C.



Immunohistochemistry

Image 3. Formalin-fixed and paraffin embedded rat brain tissue labeled with Anti-MEK5/Map2K5 Polyclonal Antibody, Unconjugated (ABIN754183) at 1:200 followed by conjugation to the secondary antibody and DAB staining



Successfully validated (Immunohistochemistry (IHC))

by [Immunohistochemistry Core, NYU Langone](#)

Report Number: 029645

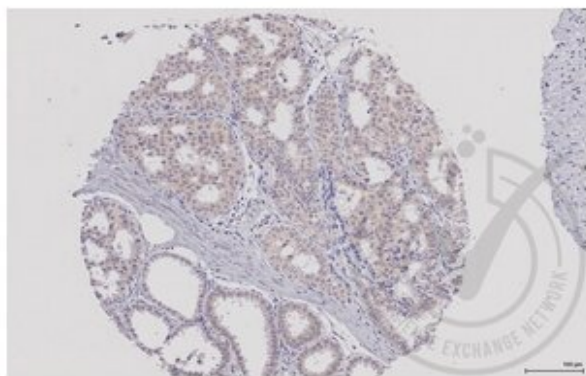
Date: Mar 15 2014

Lot Number:	120828
Method validated:	Immunohistochemistry (IHC)
Positive Control:	Human breast myoepithelial and glandular tissue
Negative Control:	Human breast adipose tissue
Notes:	Strong signal was detected in positive control sample, with minor background seen in negative control sample.
Primary Antibody:	- Antigen: Mitogen-Activated Protein Kinase Kinase 5 (MAP2K5) - Catalog number: ABIN754183 - Supplier: Bioss - Supplier catalog number: bs-4124r - Lot number: 120828
Secondary Antibody:	- Antibody: Biotinylated goat anti-rabbit/anti-mouse (Kit) - Supplier: Ventana Medical Systems - Catalog number: 760-091 - Lot number: D07640BA
Isotype:	- Antibody: Rabbit IgG isotype control - Supplier: Ventana Medical Systems - Catalog number: 790-2014 - Lot number: C11245
Controls:	<ul style="list-style-type: none">• Positive control: Human breast myoepithelial and glandular tissue stained with antibody• Negative control: Human breast adipose tissue stained with antibody• Isotype control: Human breast myoepithelial and glandular tissue stained with isotype control• Secondary only control: Human breast myoepithelial and glandular tissue stained with secondary antibody only
Protocol:	<ul style="list-style-type: none">• Immunohistochemistry was performed on a Ventana NEXes automated platform; instrument manufacturer specific reagents are italicized.• 1. Slides were preheated in convection oven at 60°C for 30 min• 2. Deparaffinization procedure: - 3 changes of Xylene, 5 min each - 3 changes of 100% Ethanol, 3 min each - 3 changes of 95% Ethanol, 3 min each - Rinsed in distilled water, 3 changes• 3. Heat retrieval procedure - Slides retrieved in 10.0 mM Citrate, pH6.0 in a 1000W microwave oven (~100°C) for 15 min. - Slides were allowed to cool (in citrate) for 30 min. - Slides were washed x 3 in Distilled water• 4. NEXes instrument procedure, iView DAB paraffin protocol (*abridged*): - Slide chamber warmed to 37°C

- 5. Slides rinsed with *reaction buffer* x3
- 6. *iView Inhibitor (H2O2)* applied and incubated for 4 min
- 7. Slides rinsed with *reaction buffer*
- 8. Antibody Application - Primary antibody diluted 1:250 in PBS (100 microliter applied/slide) - Ventana Isotype control applied neat - Slides Incubated overnight at room temperature (~12 hours ~25°C)
- 9. Slides rinsed with *reaction buffer* x3
- 10. *iView Biotinylated IgG* applied and incubated for 8 min
- 11. Slides rinsed with *reaction buffer*
- 14. *iView Streptavidin-Horseradish Peroxidase* applied and incubated for 8 min
- 15. Slides rinsed with *reaction buffer*
- 16. *iView DAB/H2O2* applied and incubated for 8 min
- 17. Slides rinsed with *reaction buffer*
- 18. *iView Copper* applied and incubated for 4 min
- 19. Slides rinsed with *reaction buffer*
- 20. Slides washed in Dawn Detergent/tap water
- 21. Counterstain Procedure - Hematoxylin (Leica 560 MX) 30 sec - Slides washed in tap water, 1 min - Decolorized (10% Acetic Acid in 70% ethanol), 1 min - Slides washed in tap water, 1 min - Bluing (Austin Clear Ammonia), 1 min - Slides washed in tap water, 1 min
- 22. Dehydration/coverslipping procedure: - 3 changes of 95% Ethanol, 3 min each - 3 changes of 100% Ethanol, 3 min each - 3 changes of Xylene, 5 min each - Mounted with Permount
- 23. Imaging: Leica SCN 400F Whole Slide Scanner with Digital Image Hub and Leica Slidepath software

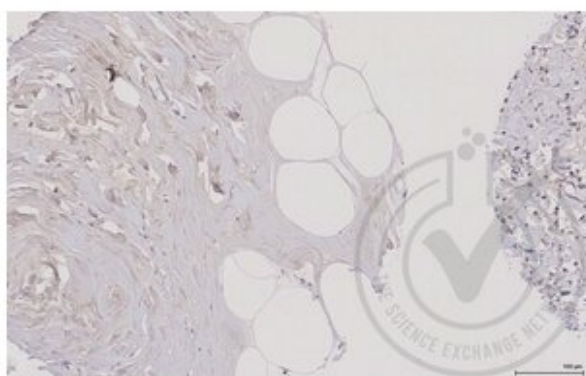
Experimental Notes:

- Deviations from protocol/procedure supplied by manufacturer (attached).
 - Step 1: Heated tissue 60°C for 30 minutes; manufacturer heats for 45 minutes.
 - Step 2: No ethanol wash was performed during deparaffinization; manufacturer includes 1 wash of 80% ethanol for 3 minutes.
 - Step 3.1: Slides were heated for 15 minutes; manufacturer provides a range of 15-20 minutes.
 - Step 3.2: Slides were cooled for 30 minutes; manufacturer cools for 20 minutes.
 - Step 4: Italicized reagents and incubation time are fixed instrument parameters.
 - Step 5: Secondary species-specific serum block not used; manufacturer blocks with 5% normal goat serum for 2 hours.
 - Step 8.1: Antibody diluted in PBS at 1:250; manufacture did not recommend diluent or dilution.
 - Step 8.2.1: Primary antibody incubated at room temperature overnight; manufacturer incubates overnight 4°C with agitation.
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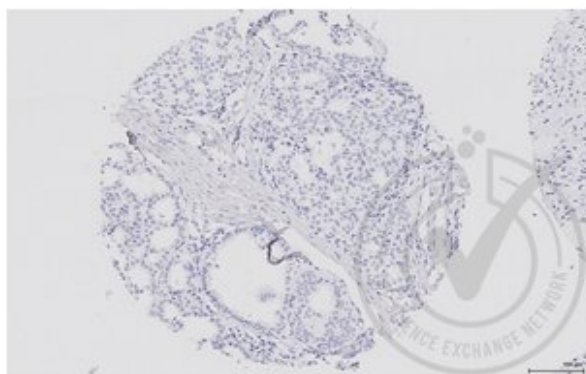
Validation image no. 1 for anti-Mitogen-Activated Protein Kinase Kinase 5 (MAP2K5) (AA 251-350) antibody (ABIN754183)

Figure 1: Human breast tissue stained with anti-MAP2K5 (brown) and counterstained with hematoxylin.



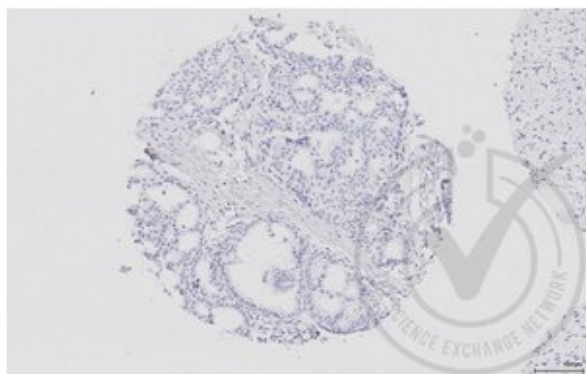
Validation image no. 2 for anti-Mitogen-Activated Protein Kinase Kinase 5 (MAP2K5) (AA 251-350) antibody (ABIN754183)

Figure 2: Human breast adipose tissue stained with anti-MAP2K5 (brown) and counterstained with hematoxylin.



Validation image no. 3 for anti-Mitogen-Activated Protein Kinase Kinase 5 (MAP2K5) (AA 251-350) antibody (ABIN754183)

Figure 3: Human breast tissue stained with isotype control antibody (brown) and counterstained with hematoxylin.



Validation image no. 4 for anti-Mitogen-Activated Protein Kinase Kinase 5 (MAP2K5) (AA 251-350) antibody (ABIN754183)

Figure 4: Human breast tissue stained with secondary antibody only (brown) and counterstained with hematoxylin.