



Rabbit Anti-MEK2 antibody

SL0223R

Product Name MEK2**Chinese Name** 丝裂原活化蛋白激酶激酶 2 抗体**Alias** Cardiofaciocutaneous syndrome; CFC syndrome; Dual specificity mitogen activated protein kinase kinase 2; Dual specificity mitogen-activated protein kinase kinase 2; ERK activator kinase 2; FLJ26075; MAP kinase kinase 2; MAP2K 2; map2k2; MAPK / ERK kinase 2; MAPK/ERK kinase 2; MAPKK 2; MAPKK2; MEK 2; MEK2; Microtubule Associated Protein Kinase Kinase 2; Mitogen activated protein kinase kinase 2; Mitogen activated protein kinase kinase 2 p45; MKK 2; MP2K2_HUMAN; OTTHUMP00000165826; OTTHUMP00000165827; PRKMK 2; PRKMK2 V.**Research Area** Tumour Cell biology Neurobiology Signal transduction Apoptosis transcriptional regulatory factor Kinases and Phosphatases**Immunogen Species** Rabbit**Clonality** Polyclonal**React Species** Human, Mouse, Rat, (predicted: Chicken,)**Applications** IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 (Paraffin sections need antigen repair)
not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.**Theoretical molecular weight** 46kDa**Cellular localization** cytoplasmic**Form** Liquid**Concentration** 1mg/ml**immunogen** KLH conjugated synthetic peptide derived from human MAPKK2: 1-50/400**Lsotype** IgG**Purification** affinity purified by Protein A**Buffer Solution** 1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.**Storage** Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

Attention

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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The protein encoded by this gene is a dual specificity protein kinase that belongs to the MAP kinase kinase family. This kinase is known to play a critical role in mitogen growth factor signal transduction. It phosphorylates and thus activates MAPK1/ERK2 and MAPK2/ERK3. The activation of this kinase itself is dependent on the Ser/Thr phosphorylation by MAP kinase kinase kinases. Mutations in this gene cause cardiofaciocutaneous syndrome (CFC syndrome), a disease characterized by heart defects, mental retardation, and distinctive facial features similar to those found in Noonan syndrome. The inhibition or degradation of this kinase is also found to be involved in the pathogenesis of Yersinia and anthrax. A pseudogene, which is located on chromosome 7, has been identified for this gene. [provided by RefSeq, Jul 2008].

Function:

Catalyzes the concomitant phosphorylation of a threonine and a tyrosine residue in a Thr-Glu-Tyr sequence located in MAP kinases. Activates the ERK1 and ERK2 MAP kinases.

Subunit:

Interacts with MORG1. Interacts with SGK1.

**Product
Detail**

Post-translational modifications:

MAPKK is itself dependent on Ser/Thr phosphorylation for activity catalyzed by MAP kinase kinase kinases (RAF or MEKK1). Phosphorylated by MAP2K1/MEK1. Acetylation of Ser-222 and Ser-226 by Yersinia yopJ prevents phosphorylation and activation, thus blocking the MAPK signaling pathway..

DISEASE:

Defects in MAP2K2 are a cause of cardiofaciocutaneous syndrome (CFC syndrome) [MIM:115150]; also known as cardio-facio-cutaneous syndrome. CFC syndrome is characterized by a distinctive facial appearance, heart defects and mental retardation. Heart defects include pulmonic stenosis, atrial septal defects and hypertrophic cardiomyopathy. Some affected individuals present with ectodermal abnormalities such as sparse, friable hair, hyperkeratotic skin lesions and a generalized ichthyosis-like condition. Typical facial features are similar to Noonan syndrome. They include high forehead with bitemporal constriction, hypoplastic supraorbital ridges, downslanting palpebral fissures, a depressed nasal bridge, and posteriorly angulated ears with prominent helices. The inheritance of CFC syndrome is autosomal dominant.

Similarity:

Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. MAP kinase kinase subfamily.

Contains 1 protein kinase domain.

SWISS:
P36507

Gene ID:
5605

Database links:

[Entrez Gene: 407835](#) Human

[Entrez Gene: 5605](#) Human

[Entrez Gene: 26396](#) Mouse

[Entrez Gene: 58960](#) Rat

[Omim: 601263](#) Human

[SwissProt: P36507](#) Human

[SwissProt: Q63932](#) Mouse

[SwissProt: P36506](#) Rat

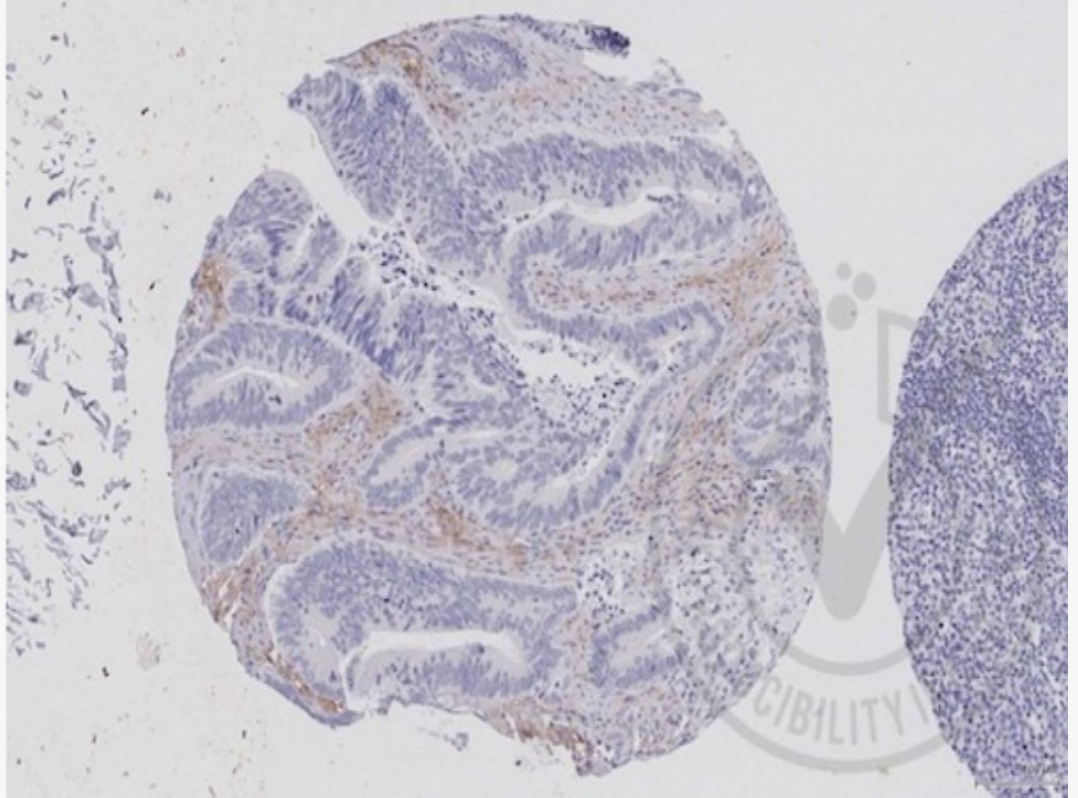
[Unigene: 465627](#) Human

[Unigene: 275436](#) Mouse

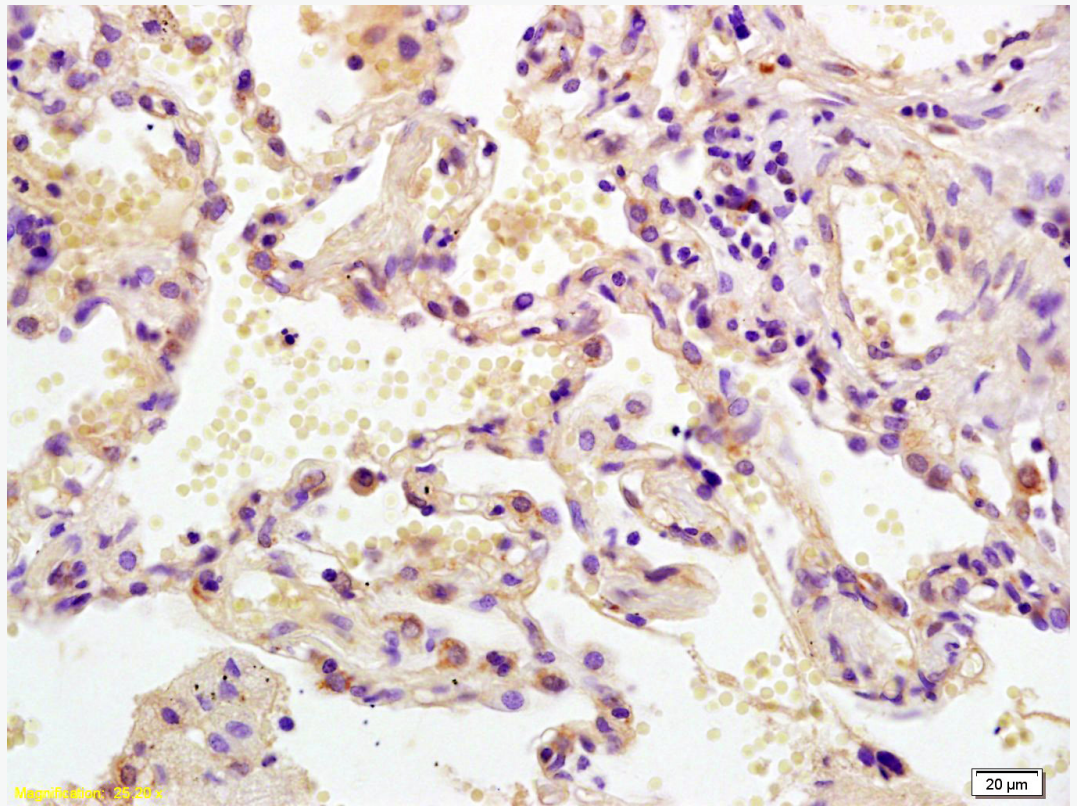
[Unigene: 82693](#) Rat

丝裂原活化蛋白激酶激酶(MAPKK)是 Signal transduction 途径中的重要成员。

**Product
Picture**



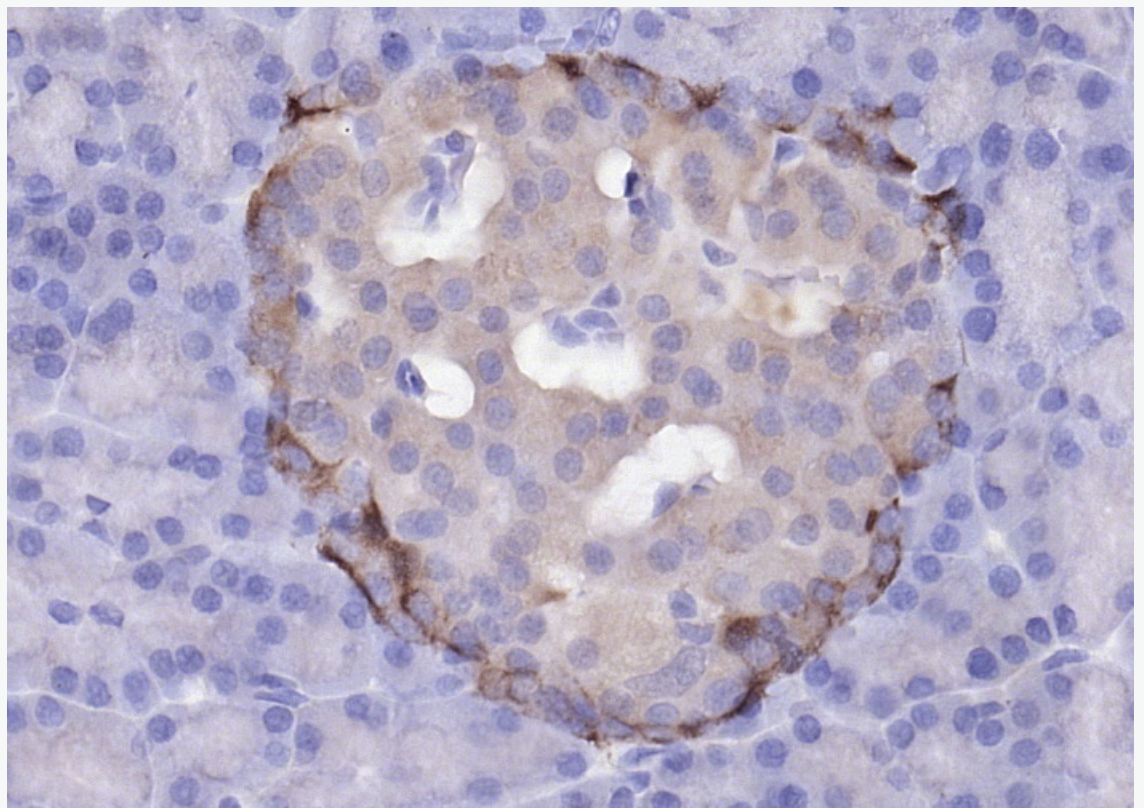
Images provided the Independent Validation Program (badge number 029639)Formalin-fixed and paraffin embedded human colon labeled with Rabbit Anti-MEK2 Polyclonal Antibody (SL0223R) at 1:1000 room temperature overnight followed by conjugation to secondary antibody.



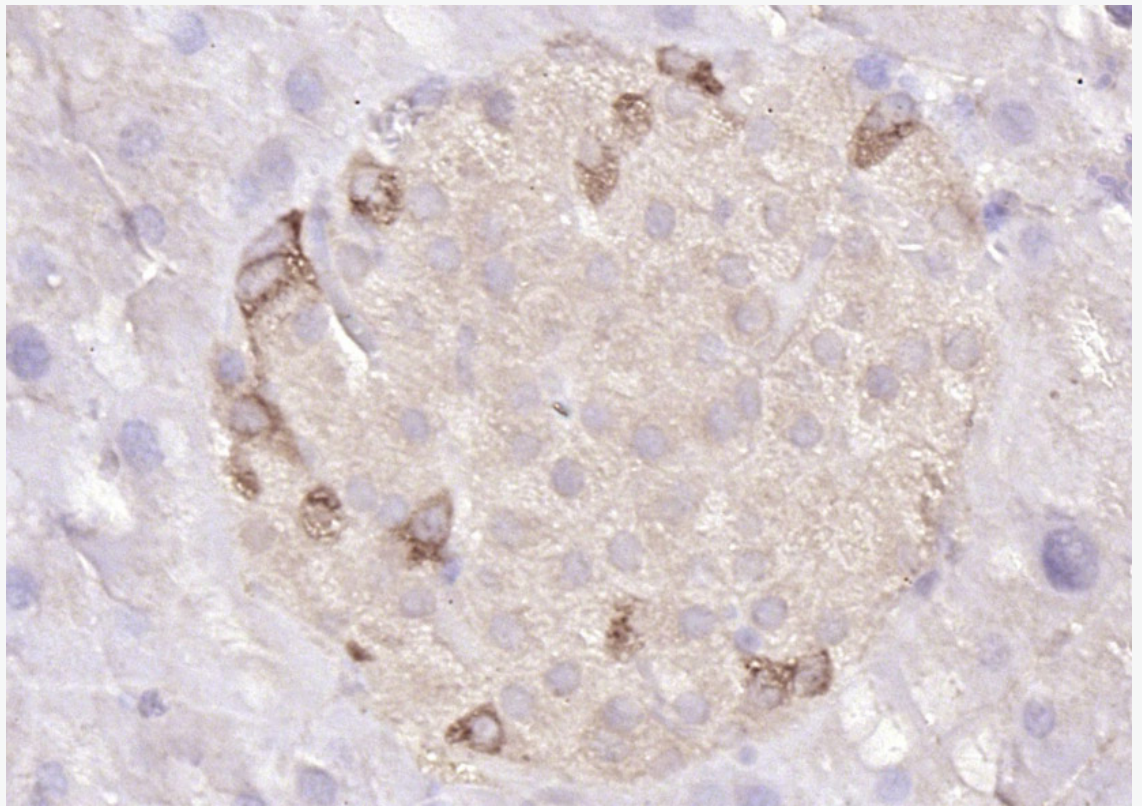
Tissue/cell: human lung carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

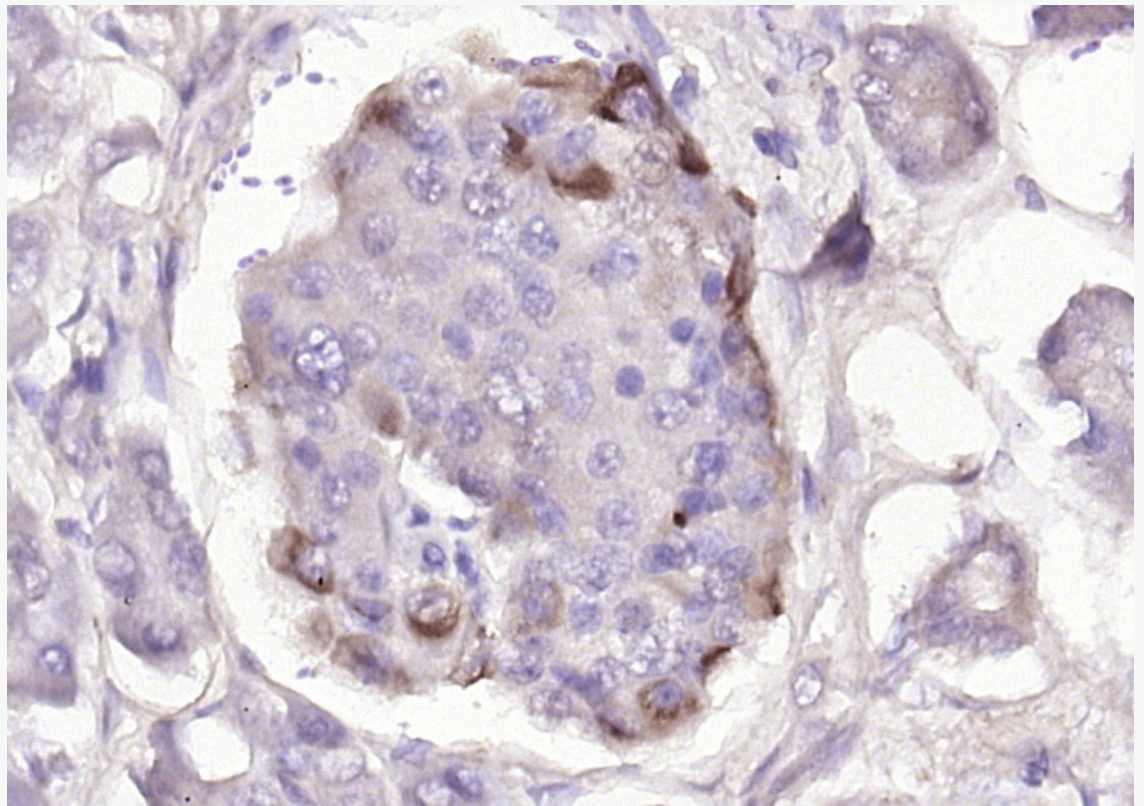
Incubation: Anti-MEK2/MAPKK2 Polyclonal Antibody, Unconjugated(SL0223R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



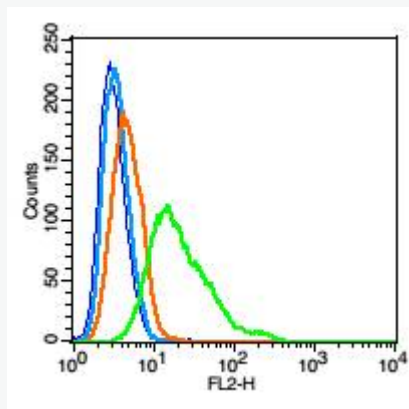
Paraformaldehyde-fixed, paraffin embedded (rat pancreas); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (MEK2) Polyclonal Antibody, Unconjugated (SL0223R) at 1:2000 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (mouse pancreas); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (MEK2) Polyclonal Antibody, Unconjugated (SL0223R) at 1:2000 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (human pancreatic carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (MEK2) Polyclonal Antibody, Unconjugated (SL0223R) at 1:2000 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Blank control: Hep G2 cells (blue).

Primary Antibody:Rabbit Anti- MEK2 antibody(SL0223R), Dilution: 1 μ g in 100 μ L
1X PBS containing 0.5% BSA;

Isotype Control Antibody: Rabbit IgG(orange), used under the same conditions);

Secondary Antibody: Goat anti-rabbit IgG-PE(white blue), Dilution: 1:200 in 1 X PBS
containing 0.5% BSA.

Protocol

The cells were fixed with 2% paraformaldehyde (10 min), then permeabilized with 90% ice-cold methanol for 30 min on ice. Primary antibody (SL0223R, 1 μ g /1x10⁶ cells) were incubated for 30 min on the ice, followed by 1 X PBS containing 0.5% BSA + 1 0% goat serum (15 min) to block non-specific protein-protein interactions. Then the Goat Anti-rabbit IgG/PE antibody was added into the blocking buffer mentioned above to react with the primary antibody at 1/200 dilution for 30 min on ice. Acquisition of 20,000 events was performed.