

MAP3K4 RABBIT PAB

Cat.#: S220005

Product Name: Anti-MAP3K4 Rabbit Polyclonal Antibody

Synonyms: MTK1; MEKK4; MAPKKK4; PRO0412

UNIPROT ID: Q9Y6R4 (Gene Accession - NP_005913.2)

Background: The central core of each mitogen-activated protein kinase (MAPK) pathway is a conserved cascade of 3 protein kinases: an activated MAPK kinase kinase (MAPKKK) phosphorylates and activates a specific MAPK kinase (MAPKK), which then activates a specific MAPK. While the ERK MAPKs are activated by mitogenic stimulation, the CSBP2 and JNK MAPKs are activated by environmental stresses such as osmotic shock, UV irradiation, wound stress, and inflammatory factors. This gene encodes a MAPKKK, the MEKK4 protein, also called MTK1. This protein contains a protein kinase catalytic domain at the C terminus. The N-terminal nonkinase domain may contain a regulatory domain. Expression of MEKK4 in mammalian cells activated the CSBP2 and JNK MAPK pathways, but not the ERK pathway. In vitro kinase studies indicated that recombinant MEKK4 can specifically phosphorylate and activate PRKMK6 and SERK1, MAPKKs that activate CSBP2 and JNK, respectively but cannot phosphorylate PRKMK1, an MAPKK that activates ERKs. MEKK4 is a major mediator of environmental stresses that activate the CSBP2 MAPK pathway, and a minor mediator of the JNK pathway. Two alternatively spliced transcripts encoding distinct isoforms have been described.

Immunogen: Synthetic peptide of human MAP3K4

Applications: ELISA, IHC

Recommended Dilutions: IHC: 25-100; ELISA: 1000-5000

Host Species: Rabbit

Clonality: Rabbit Polyclonal

Isotype: Immunogen-specific rabbit IgG

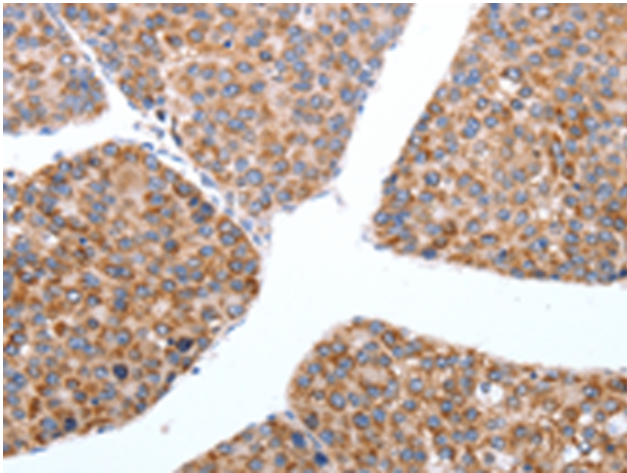
Purification: Antigen affinity purification

Species Reactivity: Human

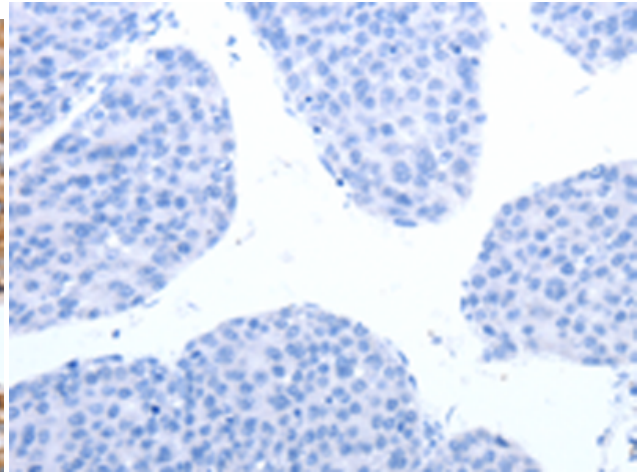
Constituents: PBS (without Mg²⁺ and Ca²⁺), pH 7.4, 150 mM NaCl, 0.05% Sodium Azide and 40% glycerol

Research Areas: Signal Transduction, Neuroscience

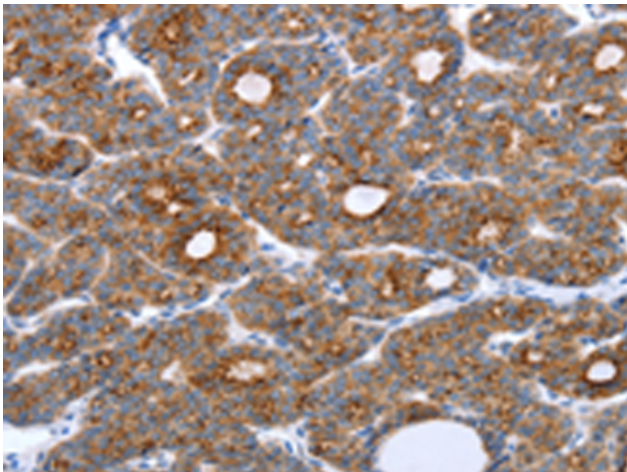
Storage & Shipping: Store at -20°C. Avoid repeated freezing and thawing



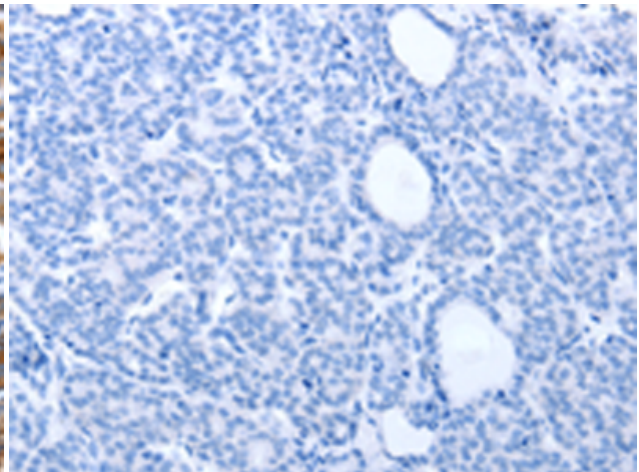
Immunohistochemistry analysis of paraffin embedded Human breast cancer tissue using 220005 (MAP3K4 Antibody) at a dilution of 1/20 (Cytoplasm).



In comparison with the IHC on the left, the same paraffin-embedded Human breast cancer tissue is first treated with the synthetic peptide and then with 220005 (Anti-MAP3K4 Antibody) at dilution 1/20.



The image on the left is immunohistochemistry of paraffin-embedded Human thyroid cancer tissue using 220005 (Anti-MAP3K4 Antibody) at a dilution of 1/20.



In comparison with the IHC on the left, the same paraffin-embedded Human thyroid cancer tissue is first treated with synthetic peptide and then with D260764 (Anti-MAP3K4 Antibody) at dilution 1/20.