

Product datasheet for **AP12870PU-N**

MAP4K1 pSer171 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Recommended Dilution:	ELISA: 1/1,000. Dot Blot: 1/500.
Reactivity:	Human
Host:	Rabbit
Isotype:	Ig
Clonality:	Polyclonal
Immunogen:	This antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S171 of human MAP4K1.
Specificity:	This antibody detects MAP4K1 pSer171. Predicted to cross react with Mouse (100% Antigen Homology).
Formulation:	PBS with 0.09% (W/V) Sodium Azide as preservative. State: Aff - Purified State: Liquid purified Ig fraction.
Concentration:	lot specific
Purification:	Affinity purification in a 2-step procedure with the control and phosphorylated peptides. The phospho-specific antibody is eluted with high and low pH buffers and neutralized immediately, followed by dialysis against PBS.
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	mitogen-activated protein kinase kinase kinase kinase 1
Database Link:	Entrez Gene 11184 Human Q92918



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Background:

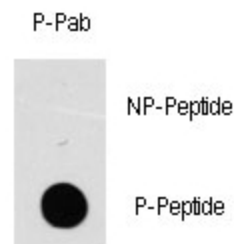
The c-Jun amino-terminal kinases (JNKs)/stress-activated protein kinases (SAPKs) play a crucial role in stress responses in mammalian cells. The mechanism underlying this pathway in the hematopoietic system is unclear, but it is a key in understanding the molecular basis of blood cell differentiation. We have cloned a novel protein kinase, termed hematopoietic progenitor kinase 1 (HPK1), that is expressed predominantly in hematopoietic cells, including early progenitor cells. HPK1 is related distantly to the p21(Cdc42/Rac1)-activated kinase (PAK) and yeast STE20 implicated in the mitogen-activated protein kinase (MAPK) cascade. Expression of HPK1 activates JNK1 specifically, and it elevates strongly AP-1-mediated transcriptional activity in vivo. HPK1 binds and phosphorylates MEKK1 directly, whereas JNK1 activation by HPK1 is inhibited by a dominant-negative MEKK1 or MKK4/SEK mutant. Interestingly, unlike PAK65, HPK1 does not contain the small GTPase Rac1/Cdc42-binding domain and does not bind to either Rac1 or Cdc42, suggesting that HPK1 activation is Rac1/Cdc42-independent. These results indicate that HPK1 is a novel functional activator of the JNK/SAPK signaling pathway.

Synonyms:

MEKKK 1, MAPK/ERK kinase kinase 1, HPK1

Note:

Molecular weight: 91166 Da

Product images:

Dot blot analysis of anti-MAP4K1-pSer171 Phospho-specific Pab (Cat#AP12870PU-N) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.5ug per ml.

Dot Blot