

For Research Use Only

# UMP/CMP kinase Recombinant monoclonal antibody

Catalog Number:86475-1-RR



## Basic Information

<b>Catalog Number:</b> 86475-1-RR	<b>GenBank Accession Number:</b> BC014961	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ul , Concentration: 1000 µg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 51727	<b>CloneNo.:</b> 251233D3
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> P30085	<b>Recommended Dilutions:</b> WB: 1:500-1:2000 IHC: 1:200-1:800 IF/ICC: 1:50-1:500
<b>Isotype:</b> IgG	<b>Full Name:</b> cytidine monophosphate (UMP-CMP) kinase 1, cytosolic	
<b>Immunogen Catalog Number:</b> AG1920	<b>Calculated MW:</b> 228 aa, 26 kDa	
	<b>Observed MW:</b> 22 kDa	

## Applications

**Tested Applications:**  
WB, IHC, IF/ICC, ELISA

**Species Specificity:**  
human

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

**Positive Controls:**

**WB :** Raji cells, Calu-3 cells, HL-60 cells, U-251 cells, HT-29 cells

**IHC :** human lung cancer tissue,

**IF/ICC :** HeLa cells,

## Background Information

Pyrimidine nucleoside monophosphate kinase [UMP/CMP kinase (UMP/CMPK)] (CMPK1) is also named as CMK, CMPK, UCK, UMK, UMPK and belongs to the adenylate kinase family. It plays a crucial role in the formation of UDP, CDP, and dCDP, which are required for cellular nucleic acid synthesis(PMID:11912132). CMPK1 can use a broad spectrum of phosphate donors but the best phosphate donors are ATP and dATP. CMPK1 has been reported as a prognostic marker for non-small cell lung cancer, pancreatic cancer and breast cancer (PMID: 21642870, 22838950, 27558661). The longest deduced protein contains 228 amino acids and has a calculated molecular mass of 26 kDa. However, translation likely begins at the second initiation methionine, resulting in a protein of 196 amino acids(PMID:10462544). The shorter form is the endogenously translated protein(PMID:11912132). CMPK1 has 3 isoforms with the molecular mass of 22, 16 and 26 kDa.

## Storage

**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol, pH7.3  
**Aliquoting is unnecessary for -20°C storage**

**\*\*\* 20ul sizes contain 0.1% BSA**

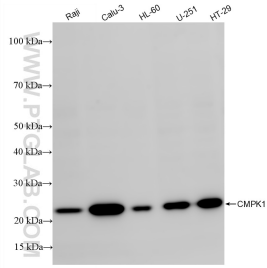
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

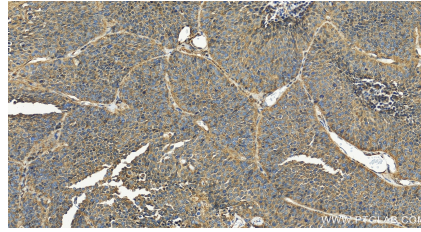
E: proteintech@ptglab.com  
W: ptglab.com

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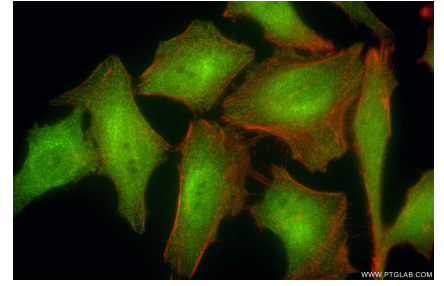
## Selected Validation Data



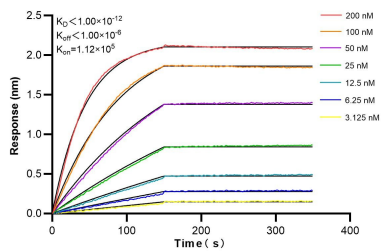
Various lysates were subjected to SDS PAGE followed by western blot with 86475-1-RR (CMPK1 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 86475-1-RR (CMPK1 antibody) at dilution of 1:400 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using CMPK1 antibody (86475-1-RR, Clone: 251233D3) at dilution of 1:200 and Coralite® 488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-Phalloidin (red).



Biolayer interferometry (BLI) kinetic assays of 86475-1-RR against Human UMP/CMP kinase were performed. The affinity constant is below 1 pM.