

TK (Ab-13) Antibody

Catalog No: #33143

Package Size: #33143-1 50ul #33143-2 100ul

Orders: order@signalwayantibody.comSupport: tech@signalwayantibody.com

Description

Product Name	TK (Ab-13) Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Applications	WB IHC IF
Species Reactivity	Hu
Specificity	The antibody detects endogenous levels of total TK protein
Immunogen Type	Peptide
Immunogen Description	Synthesized non-phosphopeptide derived from human TK around the phosphorylation site of serine 13 (P-G-S(p)-P-S).
Target Name	TK
Other Names	EC 2.7.1.21; KITH; TK-1; TK1; Thymidine kinase
Accession No.	Swiss-Prot: P04183NCBI Gene ID: 7083
Uniprot	P04183
GeneID	7083;
SDS-PAGE MW	25kd
Concentration	1.0mg/ml
Formulation	Rabbit IgG in phosphate buffered saline (without Mg ²⁺ and Ca ²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C

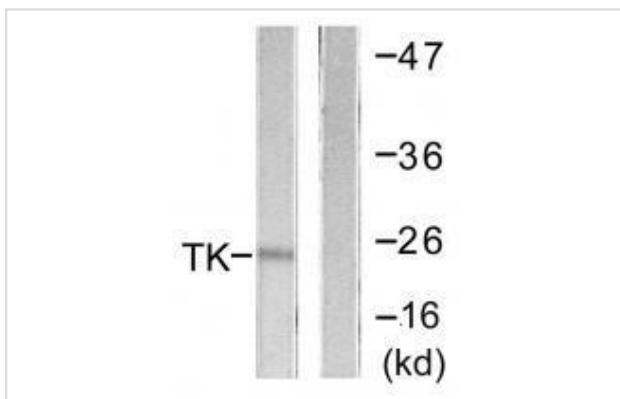
Application Details

Western blotting: 1:500~1:3000

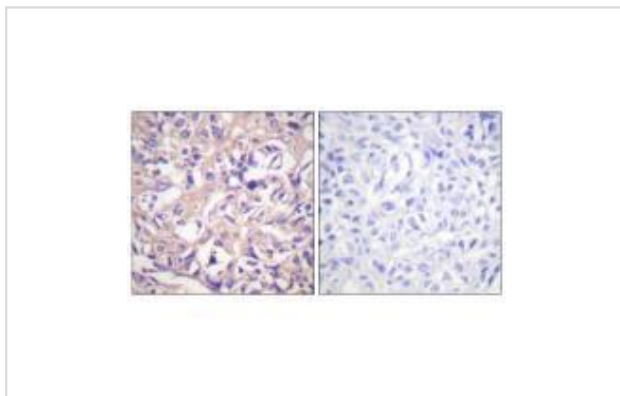
Immunohistochemistry: 1:50~1:100

Immunofluorescence: 1:100~1:500

Images



Western blot analysis of extracts from COLO205 cells, using TK (Ab-13) antibody #33143.



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma tissue using TK (Ab-13) antibody #33143.



Immunofluorescence analysis of HepG2 cells, using TK (Ab-13) antibody #33143.

Background

Thymidine kinases play a critical role in generating the DNA synthetic precursor deoxythymidine triphosphate (dTTP) by catalyzing the phosphotransfer of phosphate from ATP to deoxythymidine (dT) and thymidine (T) in the cell. TK1 expression and activity is regulated in a cell cycle-dependent manner, accumulating during G1-phase to peak levels in S-phase before being degraded prior to cell division. Stability, but not activity, may be regulated via phosphorylation of TK1 at Ser13 by Cdc2 and/or Cdk2, but the precise mode of regulation remains elusive. These observations indicate that TK1 might be a useful marker of cell proliferation; however, recent studies have shown that TK1 plays a more significant role in the DNA damage response.

N Singh, Mol. Cell. Biol., May 1991; 11: 2362 - 2374.

Bin Tian, Am. J. Pathol., Aug 2003; 163: 789.

Ren B, Gerolami, Cancer Res., Feb 2000; 60: 993 - 1001.

Catia Traversari, Blood, Jun 2007; 109: 4708 - 4715

Note: This product is for in vitro research use only