

Rabbit TK1 Polyclonal Antibody | anti-TK1 antibody

TK1 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA303686	Rabbit	Human, Mouse, Rat	Immunofluorescence, Immunohistochemistry, Western Blot

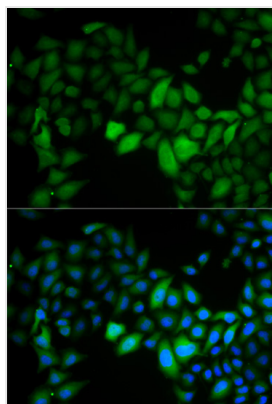
PRODUCT SYNONYMS

TK1; Polyclonal Antibody; TK1 Antibody; TK2; anti-TK1 antibody

PRODUCT SPECIFICATIONS

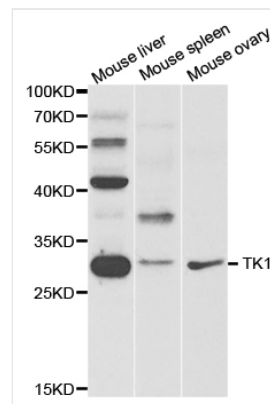
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Specificity	The antibody detects endogenous level of total TK1 protein.
Purity/Purification	Antibodies were purified by affinity purification using immunogen.
Form/Format	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg ²⁺ and Ca ²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1.0 mg/ml (varies by lot)
Sequence Length	234
Applicable Applications for anti-TK1 antibody	IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen Type	Recombinant Protein
Immunogen Description	Recombinant protein of human TK1.
Target Name	TK1
Preparation and Storage	Store at -20 degree C

IMAGES



IF (Immunofluorescence)

Immunofluorescence analysis of HeLa cell using TK1 antibody. Blue: DAPI for nuclear staining.



WB (Western Blot)

Western blot analysis of extracts of various cell lines, using TK1 antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-TK1 antibody	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. There are two known thymidine kinases, cytoplasmic thymidine kinase 1 (TK1) and mitochondrial thymidine kinase 2 (TK2) (1,2). Unlike TK2, which is not modulated by the cell cycle, 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 (3,4). 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 (5). 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 (6). Genotoxic stress promotes increased TK1 expression and kinase activity resulting in reduced cellular apoptosis and enhanced DNA repair efficiency (6). More importantly, numerous studies show that TK1 expression and activity are upregulated during neoplasia and disease progression in humans, and increased serum levels of TK1 correlate with poor prognosis and decreased survival in patients with various types of advanced tumors (7-12).
Product Categories/Family for anti-TK1 antibody	Total protein Ab

NCBI AND UNIPROT INFORMATION

NCBI GI #	164698438
NCBI GeneID	7083
NCBI Accession #	NP_003249.3
NCBI GenBank Nucleotide #	NM_003258.4
UniProt Accession #	P04183; Q969V0; Q9UMG9; B2RC58
Molecular Weight	25,469 Da
NCBI Official Full Name	thymidine kinase, cytosolic
NCBI Official Synonym Full Names	thymidine kinase 1, soluble
NCBI Official Symbol	TK1
NCBI Official Synonym Symbols	TK2
NCBI Protein Information	thymidine kinase, cytosolic
UniProt Protein Name	Thymidine kinase, cytosolic
UniProt Gene Name	TK1
UniProt Entry Name	KITH_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://www.aaabiotech.com/polyclonal/tk1-antibody-immunofluorescence-immunohistochemistry-western-blot-elisa/303686>