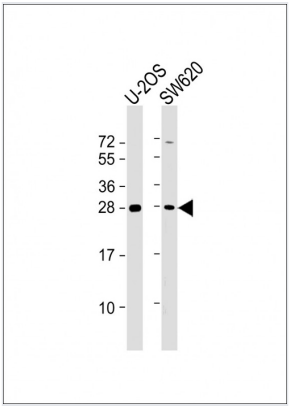
TK1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	TK1, Polyclonal Antibody
Full Product Name	TK1 Antibody (Center)
Product Gene Name	anti-TK1 antibody
Product Synonym Names	Thymidine kinase; cytosolic; 2.7.1.21; TK1
Clonality	Polyclonal
Isotype	Ig
Host	Rabbit
Species Reactivity	Human
Form/Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Specificity	This TK1 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 139-173 amino acids from the Central region of human TK1.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 2 weeks. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.
Molecular Weight	25469 Da
OMIM	K02581 mRNA
3D Structure	ModBase 3D Structure for P04183
Antigen Type	Synthesized Peptide
Antigen Source	Human
Cellular Location	Cytoplasm.
Product Categories/Family for anti-TK1 antibody	Crown Antibodies; New Antibodies
Applications Tested/Suitable for anti-TK1 antibody	Western Blot (WB), ELISA (EIA)
Application Notes for anti-TK1 antibody	WB: 1:2000
Related Product Information for anti-TK1 antibody	MBS9231016 is an antibody targeting TK1. Also known as TK1 Antibody (Center). Reactive in Human. Host: Rabbit.
Product References and Citations for anti-TK1 antibody	Bradshaw H.D. Jr.,et al.Mol. Cell. Biol. 4:2316-2320 (1984). Flemington E.,et al.Gene 52:267-277 (1987). Ota T.,et al.Nat. Genet. 36:40-45 (2004). Kalnine N.,et al.Submitted (OCT-2004) to the EMBL/GenBank/DDBJ databases. Kreidberg J.A.,et al.Mol. Cell. Biol. 6:2903-2909 (1986).
Other Notes	Small volumes of anti-TK1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Western Blot (WB) of anti-TK1 antibody
All lanes : Anti-TK1 Antibody (Center) at 1:2000 dilutionLane 1: U-2OS whole cell lysateLane 2: SW620 whole cell lysateLysates/proteins at 20 ug per lane. SecondaryGoat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 25 kDaBlocking/Dilution buffer: 5% NFDM/TBST.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for TK1. It may not necessarily be applicable to this product.

NCBI GI #	164698438
NCBI GeneID	7083
NCBI Accession #	NP_003249.3
UniProt Primary Accession #	P04183
UniProt Secondary Accession #	Q969V0; Q9UMG9; B2RC58
UniProt Related Accession #	P04183
GenBank Nucleotide #	NM_003258.4
NCBI Official Full Name	thymidine kinase, cytosolic isoform 1
NCBI Official Synonym Full Names	thymidine kinase 1
NCBI Official Symbol	TK1
NCBI Official Synonym Symbols	TK2
UniProt Protein Name	Thymidine kinase, cytosolic
Protein Family	Thymidine kinase
UniProt Gene Name	TK1
NCBI Protein Information	thymidine kinase, cytosolic
NCBI Summary for TK1	The protein encoded by this gene is a cytosolic enzyme that catalyzes the addition of a gamma-phosphate group to thymidine. This creates dTMP and is the first step in the biosynthesis of dTTP, which is one component required for DNA replication. The encoded protein, whose levels fluctuate depending on the cell cycle stage, can act as a low activity dimer or a high activity tetramer. High levels of this protein have been used as a biomarker for diagnosing and categorizing many types of cancers. [provided by RefSeq, Oct 2016]

UniProt Comments for TK1	TK: cytosolic thymidine kinase. Phosphorylated during mitosis. Its enzymatic activity is high in proliferating cells and peaks during the S-phase of the cell cycle; it is very low in resting cells. Protein type: EC 2.7.1.21; Kinase, other; Nucleotide Metabolism - pyrimidine; Xenobiotic Metabolism - drug metabolism - other enzymes Chromosomal Location of Human Ortholog: 17q25.3 Cellular Component: cytosol Molecular Function: identical protein binding; nucleoside kinase activity; protein binding; zinc ion binding Biological Process: DNA metabolic process; nucleobase, nucleoside, nucleotide and nucleic acid metabolic process; protein homotetramerization; pyrimidine nucleoside salvage; thymidine metabolic process
Research Articles on TK1	**1.** Data show that the median thymidine kinase (TK1) levels found in sera from breast cancer patients with T1 to T4 stage disease were 0.31, 0.46, 0.47, and 0.55 ng/ml, and these levels significantly differed from healthy controls.
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