

Anti-Tlk1 (RABBIT) Antibody
Tlk1 Antibody
Catalog # ASR5245**Specification**

Anti-Tlk1 (RABBIT) Antibody - Product Information

Host	Rabbit
Conjugate	Unconjugated
Target Species	Human
Reactivity	Human
Clonality	Polyclonal
Application	WB, E, I, LCI
Application Note	This affinity purified antibody has been tested for use in ELISA and by western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 86 kDa, 89 kDa or 64 kDa in size corresponding to isoforms of TLk-1 by western blotting in the appropriate cell lysate or extract. This antibody reacts with both phosphorylated and non-phosphorylated forms of Tlk-1 at the S743 residue (isoform 1) of the protein.
Physical State	Liquid (sterile filtered)
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Immunogen	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to a C-Terminal region near amino acids 730-755 of human Tlk1 (Tousled-like kinase) (isoform 1) protein.
Preservative	0.01% (w/v) Sodium Azide

Anti-Tlk1 (RABBIT) Antibody - Additional Information**Gene ID** 9874**Other Names**
9874**Purity**

This affinity purified antibody is directed against human Tlk-1 protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. This antibody reacts with both phosphorylated and non-phosphorylated forms of Tlk-1 at the S743 residue (isoform 1) of the protein. The antibody will react with all isoforms of Tlk-1. A BLAST analysis was used to suggest reactivity with this protein from human, chimpanzee, orangutan, and dog sources based on 100% homology for the immunogen sequence. Cross reactivity with Tlk-1 protein from mouse, rat and

chicken may occur as this sequence only varies by one amino acid residue (93% homology). Cross reactivity with Tlk-1 homologues from other sources has not been determined.

Storage Condition

Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Precautions Note

This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-Tlk1 (RABBIT) Antibody - Protein Information

Name TLK1

Synonyms KIAA0137

Function

Rapidly and transiently inhibited by phosphorylation following the generation of DNA double-stranded breaks during S-phase. This is cell cycle checkpoint and ATM-pathway dependent and appears to regulate processes involved in chromatin assembly. Isoform 3 phosphorylates and enhances the stability of the t-SNARE SNAP23, augmenting its assembly with syntaxin. Isoform 3 protects the cells from the ionizing radiation by facilitating the repair of DSBs. In vitro, phosphorylates histone H3 at 'Ser-10'.

Cellular Location

Nucleus

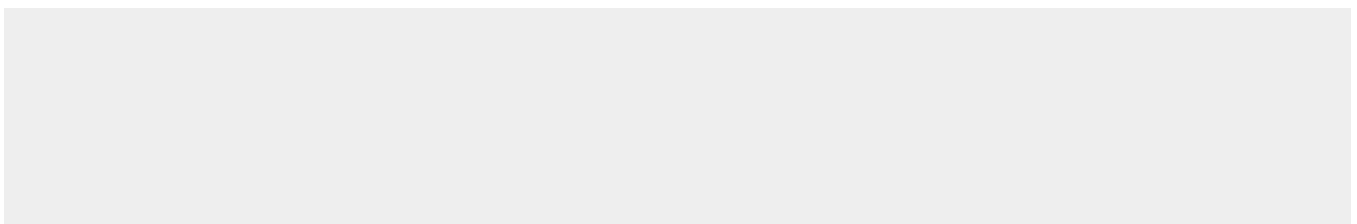
Tissue Location

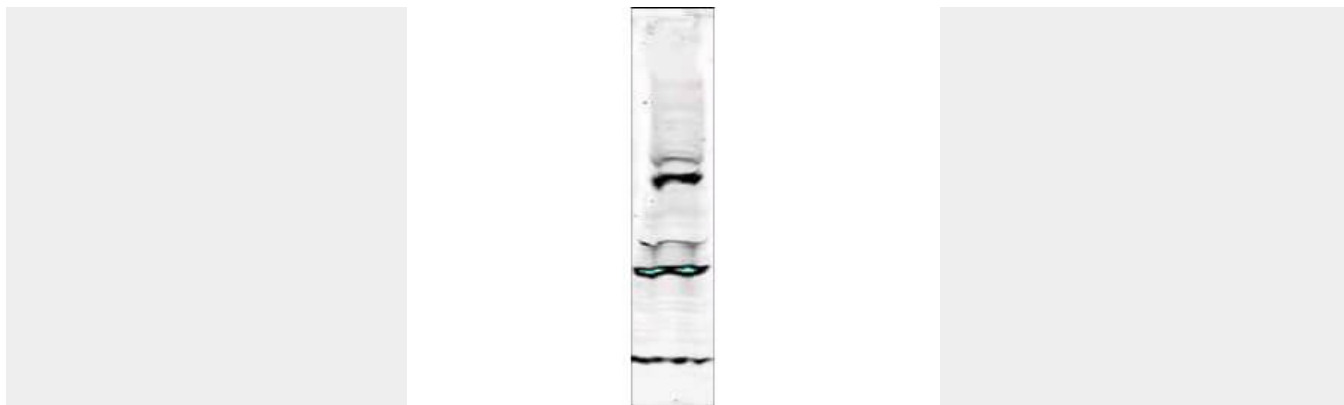
Widely expressed. Present in fetal placenta, liver, kidney and pancreas but not heart or skeletal muscle. Also found in adult cell lines. Isoform 3 is ubiquitously expressed in all tissues examined.

Anti-Tlk1 (RABBIT) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-Tlk1 (RABBIT) Antibody - Images



Western blot using Rockland's Affinity Purified anti-Tlk-1 antibody shows detection of a band ~64 kDa corresponding to isoform 3 of human Tlk-1. Specific reactivity with this band is blocked when the antibody is pre-incubated with the immunizing peptide (data not shown). Approximately 30 ug of a HeLa nuclear extract (p/n W09-001-367) was separated by SDS-PAGE and transferred onto nitrocellulose. After blocking the membrane was probed with the primary antibody diluted to 1:250 for 2h at room temperature followed by washes and reaction with a 1:10,000 dilution of IRDye 800 conjugated Gt-a-Rabbit IgG [H&L] MX (p/n 611-132-122) for 45 min at room temperature. IRDye™ 800 fluorescence image was captured using the Odyssey® Infrared Imaging System developed by LI-COR. IRDye is a trademark of LI-COR, Inc. Other detection systems will yield similar results

Anti-Tlk1 (RABBIT) Antibody - Background

Tlk-1 (also known as tousled-like kinase, serine/threonine-protein kinase tousled-like 1 and PKU-beta) is a target for Chk1 upon induction of DNA-damage. Tousled-like kinases, first described in Arabidopsis, are nuclear serine/threonine kinases that are potentially involved in the regulation of chromatin assembly. Tlk-1 is rapidly and transiently inhibited by phosphorylation following the generation of DNA double-stranded breaks during S-phase. This is cell cycle checkpoint and ATM-pathway dependent. Tlk-1 heterodimerizes with Tlk-2. Multiple isoforms of the protein have been detected. Mature Tlk-1 is reported to have an apparent molecular weight of ~86kDa, ~89kDa and ~64kDa corresponding to isoforms 1, 2 and 3 respectively.