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www.rockland.com
tech@rockland.com
+1 484.791.3823

Datasheet for 600-401-A24

PBK1 Antibody

Overview

Description:	Anti-PBK1 (RABBIT) Antibody - 600-401-A24
Item No.:	600-401-A24
Size:	100 µg
Applications:	ELISA, IF, WB
Reactivity:	Human
Host Species:	Rabbit

Product Details

Background:	This antibody is designed, produced, and validated as part of a collaboration between Rockland and the National Cancer Institute (NCI). PBK1 protein (also known as Ribosomal L1 domain-containing protein 1, cellular senescence-inhibited gene protein, and CATX-11) was isolated from highly invasive first trimester trophoblast cells and has been proposed to regulate their naturally occurring invasive behavior (Huch et al., 1998). PBK1 was also found to be over-expressed in non-small-cell lung cancer (NSCLC) cells (Petroziello et al., 2004). A recent study suggests that PBK1 may up-regulate the urokinase-type plasminogen activator (uPA) gene, which plays an important role in cellular matrix degradation and activation of other protease systems involved in cell invasion (Tong et al., 2005). The cellular localization dynamics of PBK1, as well as the data from its yeast homologue (Cic1p/Nsa3p) suggest that PBK1 is essential for ribosome biogenesis (Fatica et al., 2003). Thus, PBK1 could be controlling cell proliferation by regulating the level of ribosome production. It is hypothesized that PBK1 is involved in regulating both, cell proliferation and invasiveness, therefore playing a dual function in cancer cells transformation.
Synonyms:	rabbit anti-PBK1 antibody, PBK-1, PBK 1, CATX-11, CATX11 antibody, RSL1D1, Cellular senescence inhibited gene protein antibody, CSIG antibody, L12 antibody, Ribosomal L1 domain containing protein 1 antibody
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	RSL1D1
Reactivity:	Human
Immunogen Type:	Conjugated Peptide
Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to an internal sequence of human PBK1.
Purity/Specificity:	This product was affinity purified from monospecific antiserum by immunoaffinity chromatography. This antibody is specific for human PBK1 protein. A BLAST analysis was used to suggest limited cross-reactivity with PBK1 from mouse based on a 75% homology with the immunizing sequence. Cross-reactivity with PBK1 from other sources has not been determined.
Relevant Links:	• UniProtKB - O76021 • NCBI - 62901068 • GeneID - 26156

Application Details

Tested Applications:	ELISA, IF, WB
Application Note:	This affinity purified antibody has been tested for use in ELISA, immunoprecipitation, immunofluorescence microscopy and western blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 55 kDa in size corresponding to PBK1 by western blotting in the appropriate cell lysate or extract. This antibody is capable of detecting both over-expressed and endogenous PBK1. For immunofluorescence microscopy, fix cells with methanol.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:2,500 - 1:10,000
IF:	1:100
IP:	1:100
WB:	1:500 - 1:2,000

Formulation

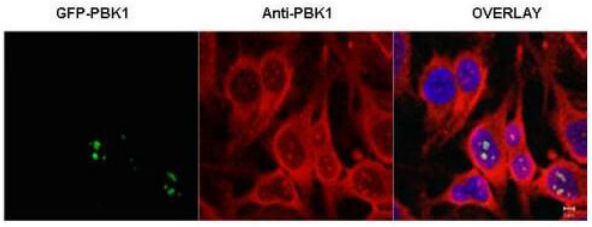
Physical State:	Liquid (sterile filtered)
Concentration:	1.1 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide

Stabilizer:	None

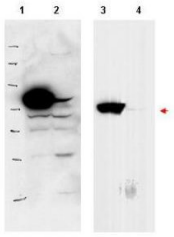
Shipping & Handling

Shipping Condition:	Dry Ice
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.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Immunofluorescence Microscopy
Immunofluorescence microscopy of HeLa cells transfected with GFP-PBK1. In the overlay, specific antibody staining is shown to co-localize with recombinant protein. Cells were fixed with methanol prior to staining. Personal communication, J. McNally and D. Stavreva, NCI, Bethesda, MD.



Western Blot
Western blot using Rockland's affinity purified anti-PBK1 antibody shows detection of over-expressed PBK1 in lysates from HeLa cells transfected with Flag-PBK1. Lanes 1 and 3 contain lysate from Flag-PBK1 transfected HeLa cells. Lanes 2 and 4 contain lysate from cells transfected with null vector. Lanes 1 and 2 were blotted with anti-Flag antibody. Lanes 3 and 4 were probed with a 1:500 dilution of anti-PBK1. The band at 75 kDa, indicated by the arrowhead, corresponds to PBK1. Personal communication, J. McNally and D. Stavreva, NCI, Bethesda, MD.

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