

Certificate of Analysis**Product:** Protein A Purified Anti-Cyclin L1 α (isoform 1) [Rabbit]**Code:** 200-401-881**Lot #:** 16333**Size:** 500 μ g**Physical State:** Lyophilized**Antibody Concentration:** 5.0 mg/ml (by UV absorbance at 280 nm)**Buffer:** 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2**Stabilizer:** None**Preservative:** 0.01% (w/v) Sodium Azide

Storage Conditions: Store vial at 4° C prior to restoration . Restore with 0.1 ml deionized water or equivalent. Dilute only prior to immediate use. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Expiration date is one (1) year from date of restoration.

Background: Cyclin L (also referred to as CCNL) is encoded by two highly related genes Cyclin L1 and Cyclin L2 (CCNL1 and CCNL2, respectively). Cyclin L has been shown to associate with the PITSLRE kinase and is involved in pre-mRNA processing. Both Cyclin L gene products can be alternatively spliced to produce two isoforms (known as 1 and 2 or alpha and beta). Cyclin L2 is ubiquitous, expressed at much higher levels than Cyclin L1, and thus is likely the major partner for the CDK11p110 protein kinase.

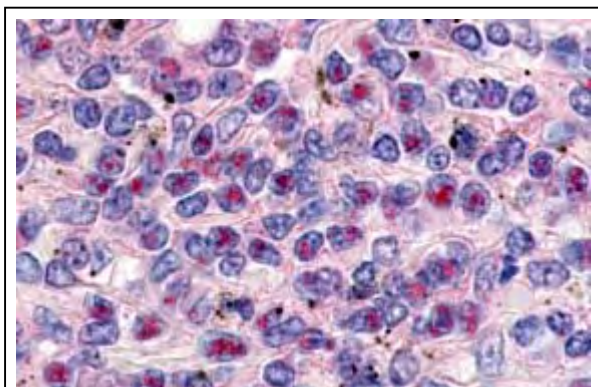
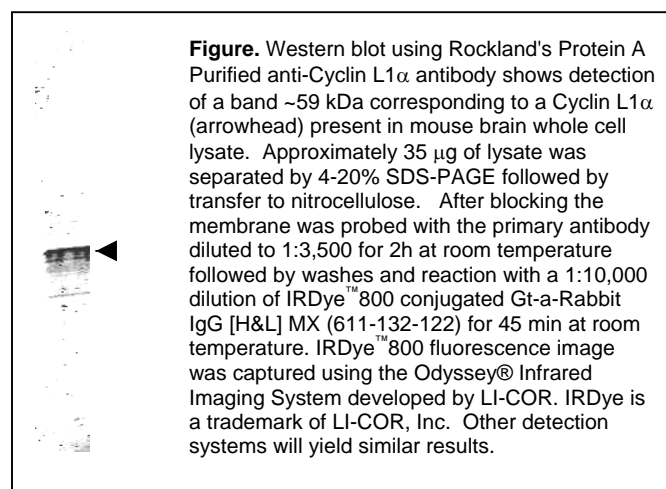


Figure 2. Immunohistochemistry. Rockland's anti-Cyclin L1 α antibody was used at a 10 μ g/ml to detect Cyclin L1 α in a variety of tissues including breast (collagen), heart, kidney (distal tubules), liver, skeletal muscle, ovary (granulosa and oocyte), pancreas (islet), placenta (trophoblast), prostate (epithelium), skin, spleen (endothelium), stomach (chief), testes (seminiferous epithelium and leydig), thymus (Hassal's corpuscle and lymphocytes) and uterus (glandular epithelium and stroma). Low to moderate background staining was noted. This image shows Cyclin L1 α staining of human spleen. Tissue was formalin-fixed and paraffin embedded. *Personal Communication, Tina Roush, LifeSpanBiosciences, Seattle, WA.*

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Application Note(s): This Protein A purified antibody has been tested for use in ELISA, immunohistochemistry western blot, immunoprecipitation and immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band ~ 59 kDa in size corresponding to Cyclin L1 α by western blotting in the appropriate cell lysate or extract.

Recommended Dilutions:

ELISA	1:5,000 - 1:25,000
WESTERN BLOT	1:2,000 - 1:5,000
IMMUNOHISTOCHEMISTRY	10 μ g/ml - 20 μ g/ml
OTHER APPLICATIONS	User Optimized

Relevant Link(s):NCBI Link [Q6NVY9](#)NCBI Link [NP_064703](#)Visit our website at: www.rockland-inc.com

Purity and Specificity: The product was purified from monospecific antiserum by Protein A chromatography. This antibody is specific for human Cyclin L1 α and shows negligible reactivity to Cyclin L1 β or Cyclin L2 isoforms. A BLAST analysis was used to suggest reactivity with this protein from human and chimpanzee based on 100% homology for the immunogen sequence. Cross reactivity with Cyclin L1 α protein from dog, rat, mouse and chicken is expected, as this sequence shows 87-96% homology with the protein from these sources. Cross reactivity with Cyclin L1 α homologues from other sources has not been determined.

Protein Sequence: Human Cyclin L1 α , 526 aa, predicted MW 59.6 kDa

1	masgphstat	aaaassaap	saggsssgtt	tttttgggi	ligdrylsev	sltidhslip
61	eerlsptpsm	qdgldlpset	dlrilgceli	qaagillrlp	qvamatgqvl	fhrffysksf
121	vkhsfeivam	acinlaskie	eaarrirdvi	nvfhhlrqlr	gkrtpsplil	dqnyintknq
181	vikaerrvlk	elgfcvhvkh	phkiivmylq	vlecernqtl	vqtawnymnd	slrtvfvrf
241	qpetiacaci	ylaaralqip	lptrphwfill	fgtteeiqe	icietrlryt	rkkpnyelle
301	kevekrkval	qeaklkakgl	npdgtpalst	lggfspaskp	ssprevkaee	kspisinvkt
361	vkkepedrqq	askspyngvr	kdsksrnsr	sasrsrstr	srsrshtpr	hynnrrsrg
421	tyssrsrs	rshsesprrh	hnhgsphlka	khtrddlkss	nrhghkrkks	rsrsqsksr
481	hsdaakhrh	erghhrdre	rsrsfershk	skhhggsrsg	hgrhrr	

Immunogen: This Protein A purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic polypeptide corresponding to amino acids 314-369 of Human Cyclin L1 α protein.

Specific References:

Loyera, P., Trembleya, J.H., Katonac, R., Kidd, V.J. and Lahtia, J.M. (2005) Role of CDK/cyclin complexes in transcription and RNA splicing. *Cell. Signal.* **17**; 1033 – 1051.

General References:

Sticht,C., Hofele,C., Flechtenmacher,C., Bosch,F.X., Freier,K., Lichter,P. and Joos,S. (2005) Amplification of Cyclin L1 is associated with lymph node metastases in head and neck squamous cell carcinoma (HNSCC). *Br. J. Cancer* **92** (4), 770-774.

Dickinson,L.A., Edgar,A.J., Ehley,J. and Gottesfeld,J.M. (2002) Cyclin L is an RS domain protein involved in pre-mRNA splicing. *J. Biol. Chem.* **277** (28), 25465-25473.

Yang,L., Li,N., Wang,C., Yu,Y., Yuan,L., Zhang,M. and Cao,X. (2004) Cyclin L2, a novel RNA polymerase II-associated cyclin, is involved in pre-mRNA splicing and induces apoptosis of human hepatocellular carcinoma cells. *J. Biol. Chem.* **279** (12), 11639-11648.

Berke,J.D., Sgambato,V., Zhu,P.P., Lavoie,B., Vincent,M., Krause,M. and Hyman,S.E. (2001) Dopamine and glutamate induce distinct striatal splice forms of Ania-6, an RNA polymerase II-associated cyclin. *Neuron* **32** (2), 277-287.

Related Products:

#200-401-881	Protein A Purified Anti-Cyclin L1 α (isoform 1) [Rabbit]
#600-401-878	Affinity Purified Anti-Cyclin L2 α (isoform 1) [Rabbit]
#200-401-890	Protein A Purified Anti-Cyclin L1/L2 β (isoform 2) [Rabbit]
#611-703-127	Peroxidase Conjugated Affinity Purified Anti-RABBIT IgG (H&L) (DONKEY) MX10
#611-132-122	IRDye800 Conjugated Affinity Purified Anti-RABBIT IgG (H&L) (GOAT) MX10
#MB-070	Blocking Buffer for Fluorescent Western Blotting
#KIA-003	MaxTag TM Anti-RABBIT IgG Kit for Immunoblotting
#MB-070	Blocking Buffer for Fluorescent Western Blotting

USDA Certification: All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation.

Note: This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information.