

Certificate of Analysis

Product: Affinity Purified Anti- α -Tubulin [Rabbit]

Code: 600-401-880

Lot #: 21346

Size: 200 μ g

Physical State: Liquid (sterile filtered)

Antibody Concentration: 1.66 mg/ml (by UV absorbance at 280 nm)

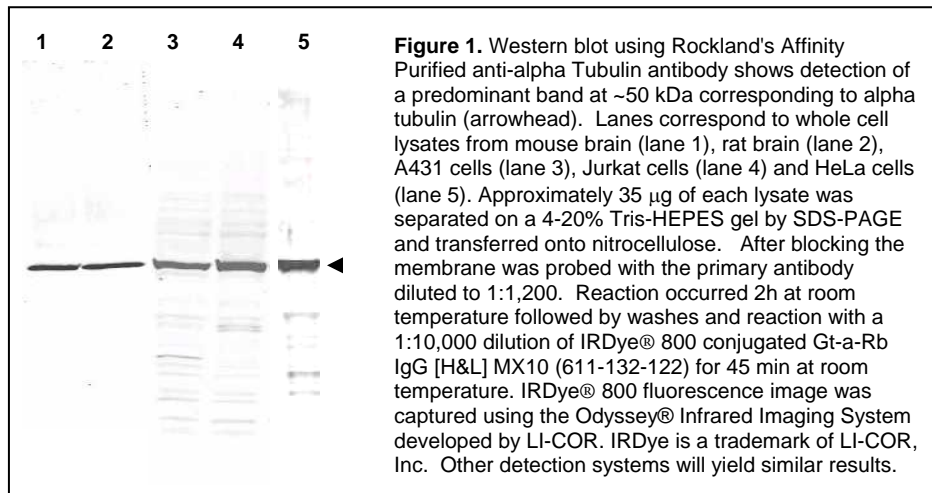
Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Stabilizer: None

Preservative: 0.01% (w/v) Sodium Azide

Storage Conditions: Store vial at -20° C prior to opening. 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 opening.

Background: Microtubules are involved in a wide variety of cellular activities ranging from mitosis and transport events to cell movement and the maintenance of cell shape. Tubulin itself is a globular protein consisting of two polypeptides (alpha and beta tubulin). Alpha and beta tubulin dimers are assembled to 13 protofilaments that form a microtubule of 22-nm diameter. Tyrosine ligase adds a C-terminal tyrosine to monomeric alpha tubulin. Assembled microtubules can again be detyrosinated by a cytoskeleton-associated carboxypeptidase. Detyrosinated alpha tubulin is referred to as Glu-tubulin. Another post-translational modification of detyrosinated alpha tubulin is C-terminal polyglutamylation, which is characteristic of microtubules in neuronal cells and the mitotic spindle. This antibody makes an excellent loading control.



Application Note(s): This affinity purified antibody has been tested for use in ELISA and western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band at \sim 50 kDa in size corresponding to alpha tubulin by western blotting in the appropriate cell lysate or extract.

Recommended Dilutions:

ELISA	1:5,000 - 1:25,000
WESTERN BLOT	1:500 - 1:3,000
IF MICROSCOPY	User Optimized
OTHER APPLICATIONS	User Optimized

Purity and Specificity: This affinity purified antibody is directed against human alpha Tubulin protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest that this antibody would react with alpha Tubulin from a wide range of organisms, including avian, mammalian aquatic, parasitic and alga sources based on 100% homology for the immunogen sequence. Cross reactivity will occur with all isoforms of alpha tubulin. Such broad reactivity makes this antibody useful as an excellent loading control.

Relevant Link(s): Swis-Prot [P68363](#) NCBI Link [NP_006000](#)

Protein Sequence: Human Tubulin, 451 aa, predicted MW 50.2 kDa

1	mrecisihvg	qagvqignac	welyclehgi	qpdgqmpsdk	tigggddsfn	tffsetgagk
61	hvpravfdl	eptvidevrt	gtyrqlfhpe	qlitgkeda	nnyarghyti	gkeiidlvd
121	rirkldqct	glqgflvfhs	fgggtgsgft	slimerlsvd	ygkksklefs	iypapqvsta
181	vvepynsilt	thttlehsdc	afmvdneaiy	dicrrndie	rptynlrl	igqivssita
241	slrfdgalnv	dlteftqnlv	pyprihfpla	tyapvisaek	ayheqlsvae	itnacfeapan
301	qmvkcdprhg	kymaccllyr	gdvvpkdvna	aiatiktrt	iqfvdwcptg	fkvginyqpp
361	tvvpggdak	vqravcmlsn	ttaiaeawar	ldhkfdlmya	krafvhwvg	egmeegefse
421	aredmaalek	dyeevgdsv	egegeeegee	y		

Immunogen: This affinity-purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to amino acids 427-441 of Human alpha Tubulin.

General References:

Hall, J.L. and Cowan, N.J. (1985) Structural features and restricted expression of a human alpha-tubulin gene. *Nucleic Acids Res.* **13** (1), 207-223.

Cowan, N.J., Dobner, P.R., Fuchs, E.V. and Cleveland, D.W. (1983) Expression of human alpha-tubulin genes: interspecies conservation of 3' untranslated regions. *Mol. Cell. Biol.* **3** (10), 1738-1745.

Related Products:

[#600-401-880](#) Affinity Purified Anti- α -Tubulin [Rabbit]
[#600-401-882](#) Affinity Purified Anti-VDAC/Porin [Rabbit]
[#600-401-886](#) Affinity Purified Anti- β -Actin [Rabbit]
[#W09-000-361](#) A431 Whole Cell Lysate in SDS-PAGE Sample Buffer
[#W09-000-364](#) HeLa Whole Cell Lysate in SDS-PAGE Sample Buffer
[#W09-001-370](#) Jurkat Whole Cell Lysate in SDS-PAGE Sample Buffer
[#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

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. 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. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 326, Gilbertsville, Pennsylvania, USA.