


Product datasheet

HRP Anti-alpha Tubulin antibody [DM1A] - Loading Control ab40742

★★★★★ [5 Abreviews](#) [63 References](#) [2 Images](#)

Overview

Product name	HRP Anti-alpha Tubulin antibody [DM1A] - Loading Control
Description	HRP Mouse monoclonal [DM1A] to alpha Tubulin - Loading Control
Host species	Mouse
Conjugation	HRP
Tested applications	Suitable for: WB, IHC-P
Species reactivity	Reacts with: Mouse, Rat, Human, Xenopus laevis Predicted to work with: Guinea pig 
Immunogen	Full length native protein (purified) corresponding to Chicken alpha Tubulin.
Positive control	This antibody gave a positive signal in the following: HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate NIH 3T3 (Mouse embryonic fibroblast cell line) Whole Cell Lysate Brain (Rat) Tissue Lysate - normal tissue Xenopus (Blastula) Whole Cell Lysate. IHC-P: FFPE human colon (normal) tissue sections.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle. Store In the Dark.
Storage buffer	Preservative: 0.1% 10% Proclin 300 Solution Constituents: 1% BSA, 30% Glycerol (glycerin, glycerine), PBS
Purity	IgG fraction
Clonality	Monoclonal

Clone number	DM1A
Isotype	IgG

Applications

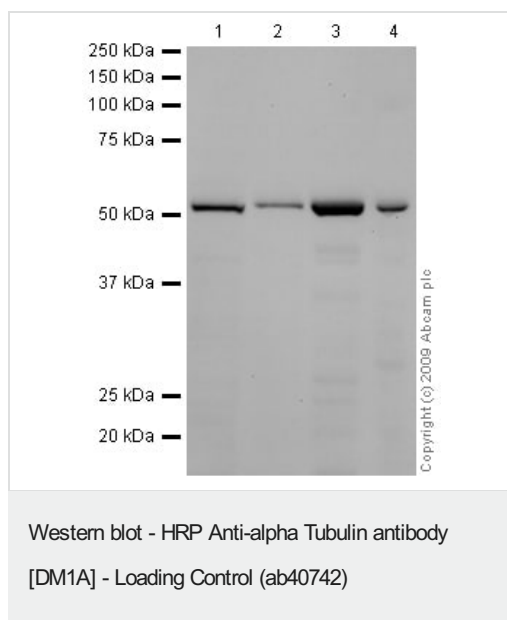
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab40742 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★ (5)	1/5000. Detects a band of approximately 57 kDa (predicted molecular weight: 50 kDa).
IHC-P		1/100. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Target

Function	Tubulin is the major constituent of microtubules. It binds two moles of GTP, one at an exchangeable site on the beta chain and one at a non-exchangeable site on the alpha chain.
Sequence similarities	Belongs to the tubulin family.
Post-translational modifications	<p>Some glutamate residues at the C-terminus are polyglutamylated. This modification occurs exclusively on glutamate residues and results in polyglutamate chains on the gamma-carboxyl group. Also monoglycylated but not polyglycylated due to the absence of functional TTL10 in human. Monoglycylation is mainly limited to tubulin incorporated into axonemes (cilia and flagella) whereas glutamylation is prevalent in neuronal cells, centrioles, axonemes, and the mitotic spindle. Both modifications can coexist on the same protein on adjacent residues, and lowering glycylation levels increases polyglutamylated, and reciprocally. The precise function of such modifications is still unclear but they regulate the assembly and dynamics of axonemal microtubules.</p> <p>Acetylation of alpha chains at Lys-40 stabilizes microtubules and affects affinity and processivity of microtubule motors. This modification has a role in multiple cellular functions, ranging from cell motility, cell cycle progression or cell differentiation to intracellular trafficking and signaling.</p>
Cellular localization	Cytoplasm > cytoskeleton.

Images



All lanes : HRP Anti-alpha Tubulin antibody [DM1A] - Loading Control (ab40742) at 1/5000 dilution

Lane 1 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate

Lane 2 : NIH/3T3 whole cell lysate ([ab7179](#))

Lane 3 : Brain (Rat) Tissue Lysate

Lane 4 : Xenopus Laevis Protein Extracts (Stg 8)

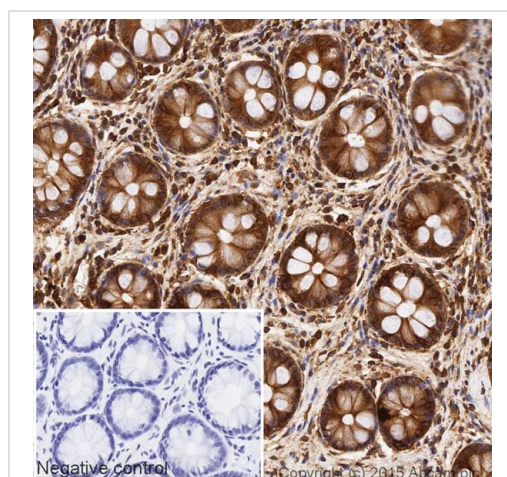
Lysates/proteins at 10 µg per lane.

Performed under reducing conditions.

Predicted band size: 50 kDa

Observed band size: 57 kDa

Exposure time: 2 minutes



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - HRP Anti-alpha Tubulin antibody [DM1A] - Loading Control (ab40742)

IHC image of alpha Tubulin staining in a section of formalin-fixed paraffin-embedded normal human colon tissue*, performed on a Leica BOND™. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20mins. The section was then incubated with ab40742, 1/100 dilution, for 15 mins at room temperature. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset negative control image is taken from an identical assay without primary antibody.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre

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