

Datasheet: MCA77D680

**BATCH NUMBER 152147**

<b>Description:</b>	RAT ANTI TUBULIN ALPHA:DyLight®680
<b>Specificity:</b>	TUBULIN ALPHA
<b>Format:</b>	DyLight®680
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	YL1/2
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	0.1 mg

## Product Details

### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			▪	
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting	▪			1/500 - 1/2000

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls

### Target Species

Yeast

### Species Cross Reactivity

Reacts with: Ashbya, Human, Mouse, Dog, Rat, Pig, Drosophila, Saccharomyces, Pleurobrachia, Caenorhabditis, Dictyostelium discoideum, Xenopus, Pig-tailed macaque, Clytia sp., Arabidopsis, Strongylocentrotus purpuratus, Dendroaster excentricus, Trypanosoma brucei, Potorous tridactylis, Bovine, Hemicentrotus pulcherrimus, Potato, Bombyx mori, Rhodnius prolixus, Beroe abyssicola, Candida sp.

Does not react with: Nephrotoma suturalis

Based on sequence similarity, is expected to react with: Birds, Echinoderm, Plants, Amphibia

**N.B.** Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for

further information.

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<b>Product Form</b>	Purified IgG conjugated to DyLight®680 - liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	Dylight®680	692	712
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant.		
<b>Buffer Solution</b>	Phosphate buffered saline		
<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> )		
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml		
<b>Immunogen</b>	Yeast tubulin.		
<b>RRID</b>	AB_2021093		
<b>Fusion Partners</b>	Spleen cells from immunized LOU rats were fused with cells of the Y3.Ag.1.2.3 rat myeloma cell line.		
<b>Specificity</b>	<p><b>Rat anti tubulin alpha antibody, clone YL1/2</b> recognizes the alpha subunit of tubulin, specifically binding tyrosylated Tubulin (Tyr-Tubulin) (<a href="#">Wehland et al. 1983</a>). The epitope recognized by this antibody has been extensively studied and would appear to be a linear sequence requiring an aromatic residue at the C terminus, with the two adjacent amino acids being negatively charged (represented by Glu-Glu-Tyr in Tyr-Tubulin).</p> <p>The antibody has been used in epitope tagging procedures to detect proteins tagged with a C-terminal Gly-Gly-Phe epitope. These sequence requirements have been reported to result in some cross-reactivity with other proteins in certain circumstances, including <i>E. coli</i> rec A and oxidized actin (<a href="#">Burns 1987</a>).</p> <p>Rat anti tubulin alpha antibody, clone YL1/2 is routinely tested in ELISA on tubulin.</p>		
<b>Western Blotting</b>	MCA77D680 is suitable for use as a loading control		
<b>References</b>	<ol style="list-style-type: none"><li>1. Kilmartin, J.V. <i>et al.</i> (1982) Rat monoclonal anti tubulin antibodies derived by using a new nonsecreting rat cell line. <a href="#">J Cell Biol. 93 (3): 576-82.</a></li><li>2. Wehland, J. <i>et al.</i> (1983) A rat monoclonal antibody reacting specifically with the tyrosylated form of alpha-tubulin. I. Biochemical characterization, effects on microtubule polymerization <i>in vitro</i>, and microtubule polymerization and organization <i>in vivo</i>. <a href="#">J Cell Biol. 97 (5 Pt 1): 1467-75.</a></li><li>3. Wallace, S.W. <i>et al.</i> (2010) Cdc42 regulates apical junction formation in human bronchial epithelial cells through PAK4 and Par6B. <a href="#">Mol Biol Cell. 21 (17): 2996-3006.</a></li><li>4. Wehland, J. <i>et al.</i> (1984) Amino acid sequence requirements in the epitope recognized</li></ol>		

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**Storage**

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost free freezers is not recommended. This product is photosensitive and should be protected from light. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use

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**Guarantee**

12 months from date of despatch

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**Acknowledgements**

DyLight® is a trademark of Thermo Fisher Scientific Inc. and its subsidiaries.

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**Health And Safety Information**

Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA77D680>  
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