

Mouse Microcystin LR Monoclonal Antibody

Microcystin LR monoclonal antibody (MC10E7)

CATALOG # AAA77041	HOST Mouse	REACTIVITY Species independent	APPLICATIONS Western Blot, Immunohistochemistry, ELISA
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PRODUCT SYNONYMS

Microcystin LR; Monoclonal Antibody; Microcystin LR monoclonal antibody (MC10E7); anti-Microcystin LR antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Species independent
Clonality	Monoclonal
Isotype	IgG1
Clone Number	MC10E7
Specificity	Recognizes all 4-Arg microcystins
Purity/Purification	Protein G affinity purified
Form/Format	Lyophilized
Applicable Applications for anti-Microcystin LR antibody	WB (Western Blot), IHC (Immunohistochemistry), ELISA
Reconstitution	Reconstitute with 200ul PBS containing sodium azide
Immunogen	Microcystin-LR linked via N-methyl-dehydroalanine to cationized ovalbumin
Scientific Background	Microcystins are extremely toxic compounds produced by cyanobacteria (blue-green algae), belonging to species of Microcystis, Oscillatoria, Anabaena and Nostoc. The contamination of drinking water or water of recreational areas can cause severe health problems to exposed humans and animals. Microcystins possess a cyclic heptapeptide structure of the general composition cyclo(-D-Ala-L-X-D-erythro-?-methylisoAsp-L-Y-Adda-D-iso-Glu-N-methyldehydroAla), where Adda is the unusual C20 aa 3-amino-9-methoxy-2,6,8-trimethyl-10-phenyldeca-4,6-dienoic acid and X and Y are variable L-aa.
Preparation and Storage	Storage at 4°C will decrease antibody activity and must be avoided. Avoid freeze/thaw cycles. After opening, prepare aliquots and store at -20°C (long term).

ADDITIONAL INFORMATION

Related Product Information for anti-Microcystin LR antibody	With a direct competitive enzyme-linked immunosorbent assay (ELISA) using antibody MC10E7, IC ₅₀ values for microcystin-LR of 0.06 ug/l have been obtained. The provisional guideline value proposed by the WHO is 1 µg/l for drinking water. The detection limit for microcystin-LR is 0.006 ug/l. All microcystin variants containing an arginine at position 4 show similar IC ₅₀ values and detection limits, whereas other microcystins, such as microcystin-LA are not recognized. The affinity constant for MC10E7 was determined to be at least 7x10 ¹⁰ l/mol. The antibody was tested for its robustness against interferences (humic acids, pH, salt content, surfactants or organic solvents) and was found to be very stable. Microcystin-LR spiked water samples in the concentration range between 0.01 and 0.1 ug/l were measured and a mean recovery of 99.9±16.4% was found. The antibody is well suited for the sensitive analysis of microcystins in drinking as well as surface water.
Product Categories/Family for anti-Microcystin LR antibody	Small Molecule Chemistry ; Carcinogen & Tumor Promoters ; Proteostasis ; Posttranslational Modifications

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/monoclonal/microcystin-lr-antibody-clone-mc10e7-western-blot-immunohistochemistry-elisa/77041>