

## Mycoplasma removal agent (MC-210)

This is a mycoplasma removal agent for cell culture and protects precious cultured cells for research from mycoplasma contamination. This agent demonstrates high removal effects against a common contaminant, i.e., mycoplasma orale.

### Characteristics

- This agent exerts potent antimycoplasma effects for a diverse range of mycoplasma.
- This agent demonstrated mycoplasma-cidal activity. Accordingly, once mycoplasma is removed from cultured cells, mycoplasma does not grow again.
- The procedure to remove contamination is just adding this agent and culturing for about one week. This is a very simple process.

### How to use

1. This agent at the final concentration of 0.5 µg/mL is added to cultured cells contaminated by mycoplasma and cultured for about 1 week.  
 (Example) In case of 10 mL of culture media in a 25cm<sup>2</sup> culture flask, 0.1 mL of this agent is added.
2. When media change or passage culture is needed, this agent should be added at a comparable concentration.
3. Please verify that after serial passage culture with culture media without this agent, mycoplasma does not grow again.

### Storage method

It is stable at room temperature (4°C–37°C). However, it degrades by light. Please protect from light and store in a dark space.

### Precautions

- This agent is for research purpose and should be used only as a mycoplasma-cidal agent for cell culture.
- Please strictly follow the required concentration for use. Use at a concentration of 0.5 µg/mL. If removal effects cannot be observed, it should be increased to 1 µg/mL.
- Toxicity of this agent to cultured cells is low, and cytotoxicity was not observed at used concentration. However, for special functions of cells, please verify that there is no abnormality after removal of contamination.

### Reference data

- Comparison of efficacy against various mycoplasmas and Acholeplasma versus other agents

Species	MC-210		MC-110		Tiamulin		Minocycline	
	MIC	MMC	MIC	MMC	MIC	MMC	MIC	MMC
M.orale CH-19299	0.05	0.1	0.2	0.39	0.0031	3.13	0.05	25
M.arginini G-230	0.1	0.2	0.05	0.1	0.0063	12.5	0.2	>100
M.hyorhinis BST-7	0.05	0.1	0.05	0.1	0.0031	0.39	0.0031	0.39
A.laidlawii PG-8	0.0125	0.025	0.1	0.2	0.05	>100	0.05	>100
MIC/MMC	2		2		128~>2048		512~>2048	

- Mycoplasma-removal effects from contaminated cells

concentration (µg/mL)	MC-210 cculture days			
	0	7	14	21
Human cell-A				
0.39	+	—	—	—
0.2	+	—	—	—
0.1	+	—	+	+
0	+	+	+	+
Human cell-B				
0.78	+	—	—	—
0.39	+	—	—	—
0.2	+	—	—	—
0.1	+	+	+	+
0	+	+	+	+

- Minimum growth inhibitory concentration against other mycoplasmas

	MC-210
Mycoplasma fermentans PG-18	0.0125
Mycoplasma salivarium PG-20	0.1
Mycoplasma hominis PG-21	0.1
Mycoplasma buccale CH-20247	0.025