

mlHC Antibody Stripping Buffer

Cat. No.	Product	Spec.
BUF0107-15	mlHC Antibody Stripping Buffer	15 mL
BUF0107-30	mlHC Antibody Stripping Buffer	30 mL
BUF0107-100	mlHC Antibody Stripping Buffer	100 mL

Storage

Store at 2 to 8 °C, protected from light. Stable for up to one year.

Product Description

mlHC Antibody Stripping Buffer enables efficient removal of antibodies from previously stained tissue slides, allowing multiple rounds of immunohistochemical staining or labeling on the same specimen. Its optimized formulation effectively strips bound antibodies under mild conditions without altering tissue morphology or damaging target proteins. The buffer is suitable for frozen tissue sections, FFPE (formalin-fixed paraffin-embedded) slides, and cell coverslips.

How to Use

1. Bring the mlHC antibody stripping buffer to room temperature before use.
2. For a 2.4 × 2.4 cm² slide, apply 2–3 drops (approximately 100 µL) of buffer to fully cover the sample. Incubate at room temperature or at 37 °C for 15–20 minutes.
3. Wash the slide three times with PBS.

FAQ

1. How can I confirm that antibodies have been completely stripped off?
After antibody stripping, stain the slide with DAB. If brown precipitates appear at the target sites, residual antibodies remain, indicating that the stripping conditions need further optimization.
2. How can I optimize the stripping conditions?
Incubate at 37 °C or extend the incubation time. You can also repeat antibody stripping process multiple times if necessary.
3. How can I optimize stripping conditions based on the subcellular localization of target proteins?
Optimal stripping conditions vary depending on the subcellular location of the target protein. You can adjust the incubation temperature, duration, and number of stripping cycles accordingly. Table 1 lists the recommended conditions for commonly used antibodies targeting different subcellular compartments.

4. Will the antibody stripping buffer reduce the fluorescent signal intensity in multiplex immunofluorescent experiment, such as TSA?
In general, the antibody stripping buffer is compatible with TSA and other mIF assays and does not affect target signals. However, a decrease in fluorescent intensity may occur after stripping. This can happen when targets with low expression levels provide limited covalent binding sites for tyramide dyes. In such cases, part of the dye binds to the antibody instead of target proteins and is subsequently removed during stripping, resulting in reduced signal intensity. To minimize this effect, it is recommended to stain low-intensity targets in the final round of the TSA experiment.

5. Will the antibody stripping buffer disrupt tissue morphology or target proteins?
Because both the formulation and operating conditions are mild, the buffer removes antibodies without disrupting tissue morphology or affecting target proteins.

6. Why does the antibody stripping buffer work under mild conditions?
The buffer removes antibody under mild conditions by disrupting the non-covalent interactions between the antibody and antigen.

7. Will the antibody stripping buffer affect DAPI staining?
The buffer may remove part of the DAPI stain, leading to reduced signal intensity. It is recommended to apply DAPI after antibody stripping or to restain if signal intensity decreases.

Table 1. Recommended conditions for commonly used antibodies targeting different subcellular compartments			
Subcellular location	Difficulty	Antibody	Recommended conditions
Cell membrane	*	CD3, CD4	Incubate at room temperature for 15 min.
Cytoplasm	**	β-Tubulin, GAPDH	Incubate at room temperature for 20 min.
Nuclear, membrane and nucleolus	***	PCNA, Ki67	Incubate at 37 °C for 20 min.
Nucleus	*****	p53, FOXP3	Incubate at 37 °C for 40 min, or at 50 °C for 30 min.