

SensiTek (Streptavidin/Alkaline-Phosphatase) Ready-to-Use

Uses/Limitations: This reagent is provided in bulk form for automated systems or can be poured in staining jars and used repeatedly. If the DIP method is employed, staining jar should be sealed and refrigerated between uses. Remove staining jars from the refrigerator 30 minutes prior to staining to allow reagents to come to room temperature.

Storage: Store at 2-8°C.

Procedure:

1. Deparaffinize and rehydrate tissue section.
2. Wash 2 times in buffer.
3. If required, incubate tissue in digestive enzyme.
4. Wash 4 times in buffer.
5. Place slide in Super Block, and incubate for 5-10 minutes at room temperature to block nonspecific background staining. Note: Do not exceed 10 minutes or there may be a reduction in desired stain.
6. Wash 1 time in buffer.
7. Apply primary antibody and incubate according to manufacturer's protocol.
8. Wash 4 times in buffer.
9. Place slide in biotinylated link antibody, and incubate for 15-20 minutes at room temperature.
10. Wash 4 times in buffer.
11. Place slide in streptavidin/alk-phosphatase enzyme label, and incubate for 20 minutes at room temperature.
12. Rinse 4 times in buffer.
13. Place slide in appropriate chromogenic substrate and incubate until desired reaction is achieved.
14. Counterstain and coverslip using a permanent mounting media.

Troubleshooting Guide

Overstaining:

1. Concentration of the primary antibody was too high or the incubation time was too long.
2. Temperature during incubation was too high.
3. Incubation time with link antibody or streptavidin/enzyme label was too long.

Nonspecific Background Staining:

1. Rinsing between steps was inadequate.
2. Tissue was allowed to dry with reagents on.
3. Folds in tissue trapped reagents.
4. Tissue contains endogenous enzyme.
5. Tissue contains endogenous biotin.
6. Antigen migrated in tissue.
7. Excessive tissue adhesive on slides.
8. Inadequate blocking with protein block.

Weak Staining:

1. Primary antibody concentration was too low or incubation time was too short.
2. Reagents are past their expiration date.
3. Reagent is reaching the end of its useful life.
4. Counterstain or mounting media were incompatible and dissolved the chromogen reaction product.
5. Room temperature was excessively cool.
6. The primary antibody does not recognize an antigen that survives fixation and embedding in high enough amounts.
7. Excessive incubation with protein block (Super Block or normal serum).

No Staining:

1. Steps were inadvertently left out.
2. There is no relevant antigen in the tissue.
3. The primary antibody does not match the biotinylated link antibody.
4. Chromogenic substrate does not match enzyme label.
5. One or more components have been inactivated.