


| Silane | | REF | Volume |
|---|--------------|-------------------|-------------|
|  | Availability | PSM-ACF2005U-0050 | 50 pcs/box |
| | | PSM-ACF2005U-0072 | 72 pcs/box |
| | | PSM-ACF2005U-0100 | 100 pcs/box |

Intended use

Silane microscope slides are produced through a process that involves cleaning, coating, curing, and quality control steps. These slides have enhanced adhesion properties due to a silane coating that creates a permanent positive charge on the slide's surface. This coating significantly improves tissue and cytology section adhesion, ensuring uniform reagent coverage and better staining quality. Silane slides are versatile, durable, and compatible with automated staining systems, making them ideal for various laboratory applications. They form stable covalent bonds with tissues, providing a robust and chemically resistant attachment compared to positive-charged slides.

Specification

Glass material: super white glass frosted one end, one side

Bond: Covalent bond

Dimensions: 75x25x1mm

Color: Light Tan

Corner: 45°

Packaging: 50,72,100 pcs/box

Recommended for routine H&E stains, IHC, ISH, frozen sections, cell culture

Recommend for thermal transfer printer, Inkjet printer, laser printer and permanent marker

Materials Provided

Silane Microscope Slides (45°)

Materials Required but not Provided

The following materials are required but are not provided:

- 1- Slide Staining Jar & Basket
- 2- Coplin Staining Jar
- 3- Slide Dispenser
- 4- IHC Pen

Storage and Stability

Storage

- Protect the bottom of the carton from dampness.
- Keep dry.
- Avoid large variations in temperature during both storage and usage. Cooling of the product can cause condensation and lead to condensed water forming between the glasses.
- Slide storage periods is best use before expire date.

Stability and Reactivity

Hydrolytic Resistance: Hydrolytic Class-HGB3 (ISO 719 or GB/T 6582)

Acid Resistance: Acid Class-H2 (DIN 116 12 or GB/T 15728)

Alkali Resistance: Alkali Class-A2 (DIN ISO 695 or GB/T 6580)

Hazardous Decomposition: Stable

Materials to Avoid: Strong Hot Alkali Solutions (Hydrofluoric, Fluosilicic and Phosphoric)

Warnings and Precautions

1. Slides and cover glasses are ready to use and should not be reused.
2. Be aware of the possibility of harm when dealing with the slides and cover glasses, and take the corresponding safety measures, e.g. wearing gloves.
3. When using the slides and cover glasses in machines, the additional usage instructions from the manufacturer of the machinery should be followed.
4. When using dyes or other chemicals, please note the safety advice from the manufacturer.

General Limitations

Immunohistochemistry (IHC) is a powerful tool in pathology and research, but it has inherent limitations that must be considered for accurate interpretation. Key limitations include:

1. Sample Collection and Fixation Issues

Delayed Fixation: If tissue is not fixed promptly (e.g., in formalin), protein degradation can occur, leading to antigen loss.

Overfixation: Prolonged fixation may mask epitopes, reducing antibody binding and causing false negatives.

Fixative Type: Some fixatives (e.g., alcohol) may not be suitable for certain antigens.

2. Antibody-Related Limitations

Low Specificity: Antibodies may exhibit cross-reactivity, binding non-target proteins and causing false positives.

Variable Sensitivity: Weak antigen expression may go undetected if the antibody lacks sufficient sensitivity.

Optimization Required: Antibody concentration, incubation time, and antigen retrieval methods (e.g., heat-induced or enzymatic) need optimization for each target.

3. Tissue Processing Artifacts

Paraffin Embedding Issues: Tissue shrinkage, folding, or loss during sectioning can affect staining quality.

Incomplete Dehydration: Poor processing may lead to uneven staining or high background noise.

4. Staining and Detection Challenges

Non-Specific Background: Endogenous enzymes (e.g., peroxidase) or endogenous biotin can cause false signals.

Weak or Faded Staining: Over-washing or improper chromogen/substrate use may reduce signal intensity.

Fluorescence Quenching: Fluorophore-labeled antibodies may fade under prolonged light exposure.

5. Interpretation and Reproducibility







Subjectivity in Scoring: Semi-quantitative results (e.g., 3/+2/+1/0+) depend on the observer's experience.

Batch-to-Batch Variability: Differences in antibody lots or staining protocols can affect reproducibility

Tissue Heterogeneity: Uneven antigen distribution may lead to sampling bias.

LABEL AND BOX SYMBOLS

Explanation of the symbols of the product label and box:

| | | | | | |
|--|--------|---|---------------------------------|---|----------|
|  | Color |  | Refer to the instruction of use |  | Keep Dry |
|  | Degree |  | Disposable |  | Fragile |