

Quick Reference Cards | CG000730 | Rev B

# Visium Cassette S3

for Assembly & Disassembly

For use with:

Visium Slide Cassettes S3, 6.5 mm, 2pk, PN-1000847

*contains: Visium 2-port, 6.5 mm*

Visium HD Cassettes, 6.5 mm, 4 rxns, PN-1000669

*contains: Visium 2-Port Cassette S3, 6.5mm; Visium Tissue Slide Cassette S3, 6.5 mm*

Visium 8-port Cassette S3, 4 pk, PN-1000685

Visium Tissue Slide Cassette S3, 4 pk, PN-1000684

# Visium Cassette S3

## Document Revision Summary

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### Document Number

CG000730 | Rev B

### Title

Visium Quick Reference Cards – Visium Cassette S3 for Assembly & Disassembly

### Revision

Rev A to Rev B

### Revision Date

May 2025

### Description of Changes

- Added Visium HD 3' Visium HD Cassettes to the “For use with” section on the cover
- Updated descriptions of the Visium HD Cassette to include new features on page 6

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# Visium Cassette S3

## Tissue Slide Cassette Assembly (1 of 3)

### Visium Tissue Slide Cassette S3

Found in: PN-1000669, PN-1000684

The Visium Tissue Slide Cassette S3 is a single-use item used to create wells on glass slides with tissue for reagent addition and removal.



*It is distinct from the Visium 2-port Cassette S3, which encases a Visium HD Slide.*

Gaskets are used to create a sealed well around tissue. Gaskets are combined with the complimentary Visium Tissue Slide Cassette S3 components (cassette bottom, cassette top, translator) to create a complete cassette.

To ensure that the gasket surrounds the tissue area of interest, the translator can be adjusted from top to bottom and the gasket can be adjusted from left to right (see image).

Tissue or area of interest should be centered within the gasket. Assembling against a white background may aid in tissue visualization. The tissue does not need to be smaller than the gasket; however, only tissue within the gasket will be analyzed.

Assemble slide into the cassette flat on a clean work surface. For information on tested slides and slide dimensions that are compatible with the gasket, consult the Visium HD Protocol Planner (CG000698).

Practice assembly with a blank slide (75 x 25 x 1 mm).

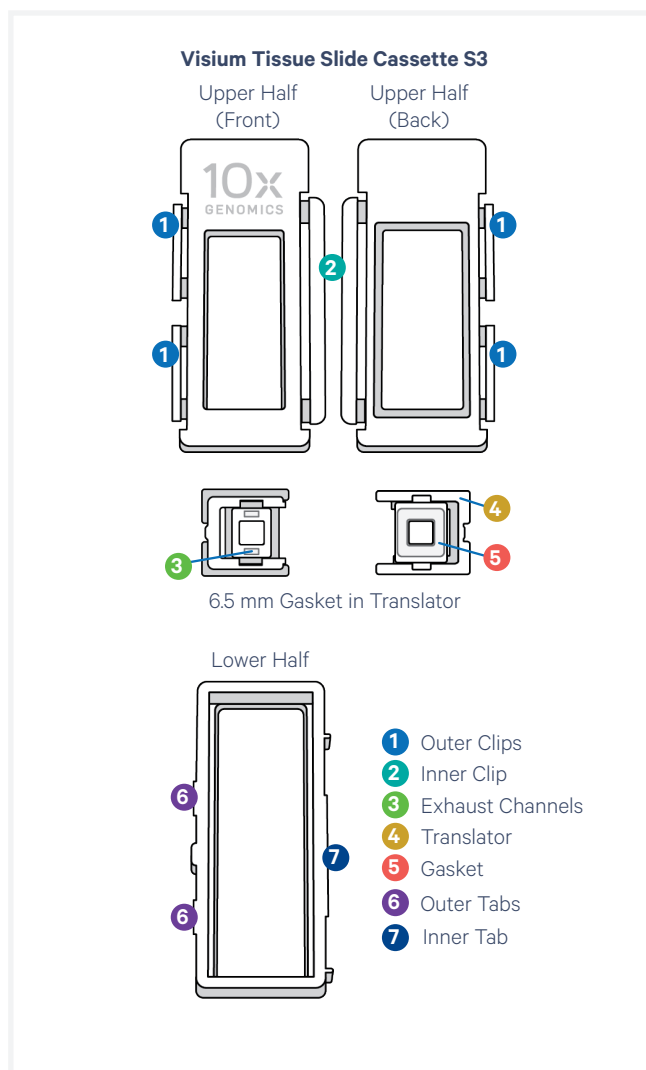


*If placing the top half of the cassette on a surface, ensure the gasket faces away from the surface so it does not collect debris.*

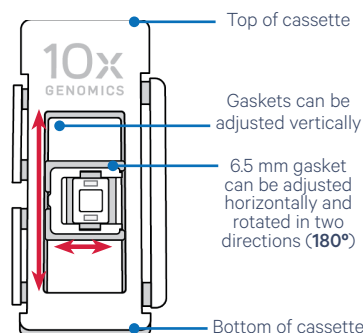
Take measures to reduce exposure of cassette, gasket, translator and slide to debris.

Place slides in the cassette only when specified.

Applying excessive force to the slide may cause the slide to break.



### Visium Tissue Slide Cassette S3 with 6.5 mm Gasket



# Visium Cassette S3

## Tissue Slide Cassette Assembly (2 of 3)

### Inspection

- Ensure that the cassette, gasket, translator and slide are free of debris both before and after assembly.
- In rare cases, the gasket may have raised pieces of silicone. These pieces are considered excess and must be removed with tweezers or a pipette tip.

*Failure to remove excess silicone may prevent adequate venting of the cassette during heated incubation steps. Excess silicone may also lead to evaporation.*

### Gasket-Translator Assembly

#### Correct assembly:

- Sides of the gasket are flush with the sides of the translator.
- Rails overlap on top of the gasket.
- Gasket slides smoothly back and forth on the tracks.

#### Incorrect assembly:

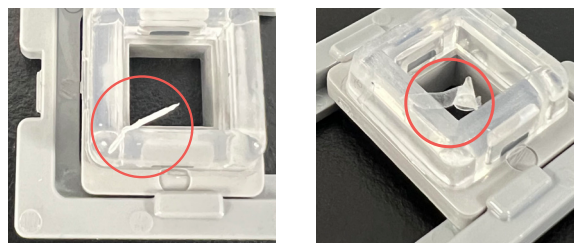
- One or both rails are to the side of the gasket rather than on top.
- There is a gap between the gasket and translator.
- There is an angle to one side of the translator.

### Install the Gasket-Translator

The opening of the translator must be oriented towards the side of the cassette, so that the gasket cannot slide out.

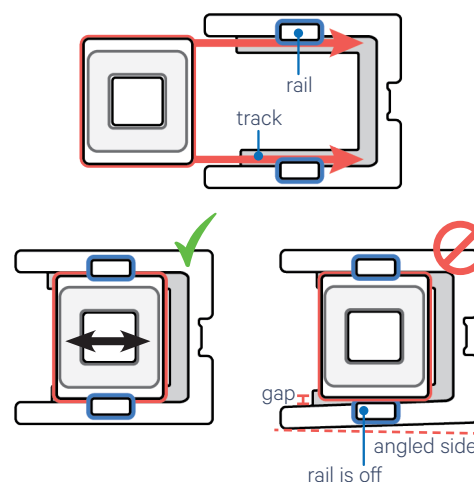
Ensure that the gasket does not get pushed out of the translator during cassette assembly (step 2), or when adjusting the gasket over tissue on the slide (step 4).

Remove Excess Silicone

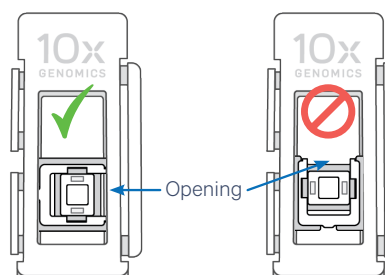


Backside View of the Gasket and Translator

The gasket slides along tracks within the translator.  
Two rails hold the gasket in place.



Placement of the Gasket-Translator within the Cassette



# Visium Cassette S3

## Tissue Slide Cassette Assembly (3 of 3)



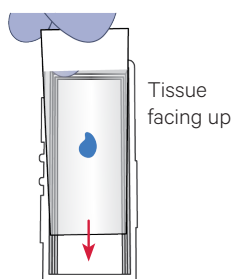
### Visium Tissue Slide Cassette S3



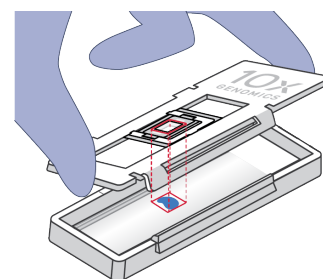
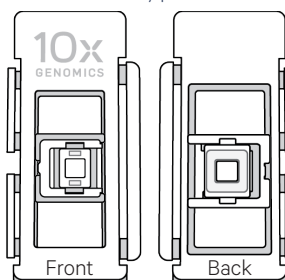
Exercise caution when handling slide edges to prevent injury.  
Wear fresh gloves while assembling the cassette.  
Do not move gasket once cassette is closed, as this may damage the tissue.  
Do not touch the bottom of the gasket to avoid collecting debris.  
Slides and cassettes shown in instructions are representative.

## Assembly

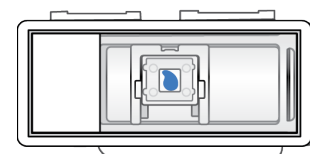
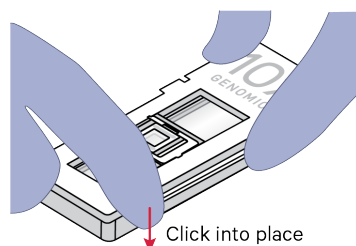
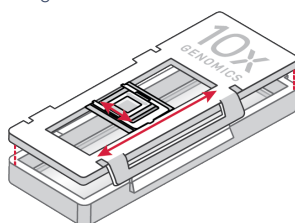
- 1 Place tissue slide into lower half of cassette with tissue facing up.
- 2 Snap pre-assembled gasket and translator into place on the top half of cassette, pressing it in from the back until it clicks into place. If necessary, the gasket can be rotated. Verify the gasket is still correctly placed within the translator.
- 3 Gently place top half of cassette over bottom half. DO NOT assemble together until Step 6.



Tissue facing up

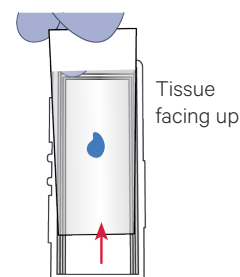
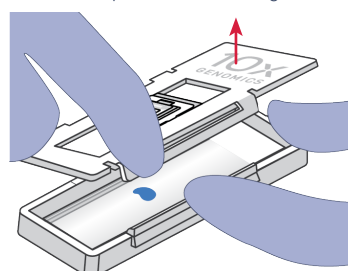
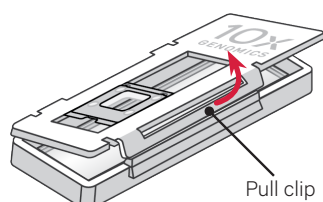


- 4 Adjust gasket and translator such that the gasket is over the tissue region of interest. Do not push down on the gasket, which could dislodge and damage the tissue, or push the gasket out of the translator.
- 5 Apply even pressure on top and bottom of cassette until it clicks shut. Verify that clip is completely secured over tab.
- 6 Turn cassette over and verify that tissue area of interest is within gasket. DO NOT move gasket once cassette is closed. If necessary, open cassette and reposition gasket.



## Removal

- 1 Pull clip up to detach upper and lower halves of cassette.
- 2 Open cassette by continuing to lift clip. If slide sticks to gasket, apply even upward pressure to separate slide from gasket.
- 3 Hold the top of the slide and lift slide out from lower half.



# Visium Cassette S3

## Visium Cassette Assembly (1 of 2)

### Visium 2-port Cassette S3, 6.5 mm

Found in: PN-1000669, PN-1000847

### Visium 8-port Cassette S3

Found in: PN-1000685

The Visium 2-port Cassette S3, 6.5 mm encases the Visium HD slide and creates leakproof wells for reagent addition. The Visium 8-port Cassette S3 is used during immunofluorescence staining optimization.

### Inspection

- Ensure that the cassette, gasket and slide are free of debris both before and after assembly.
- In rare cases, the gasket may have raised pieces of silicone. These pieces are considered excess and must be removed with tweezers or a pipette tip (see [page 4](#) for visual example).

*Failure to remove excess silicone may prevent adequate venting of the cassette during heated incubation steps. Excess silicone may also lead to evaporation.*

Practice assembly with a blank slide (75 x 25 x 1 mm).

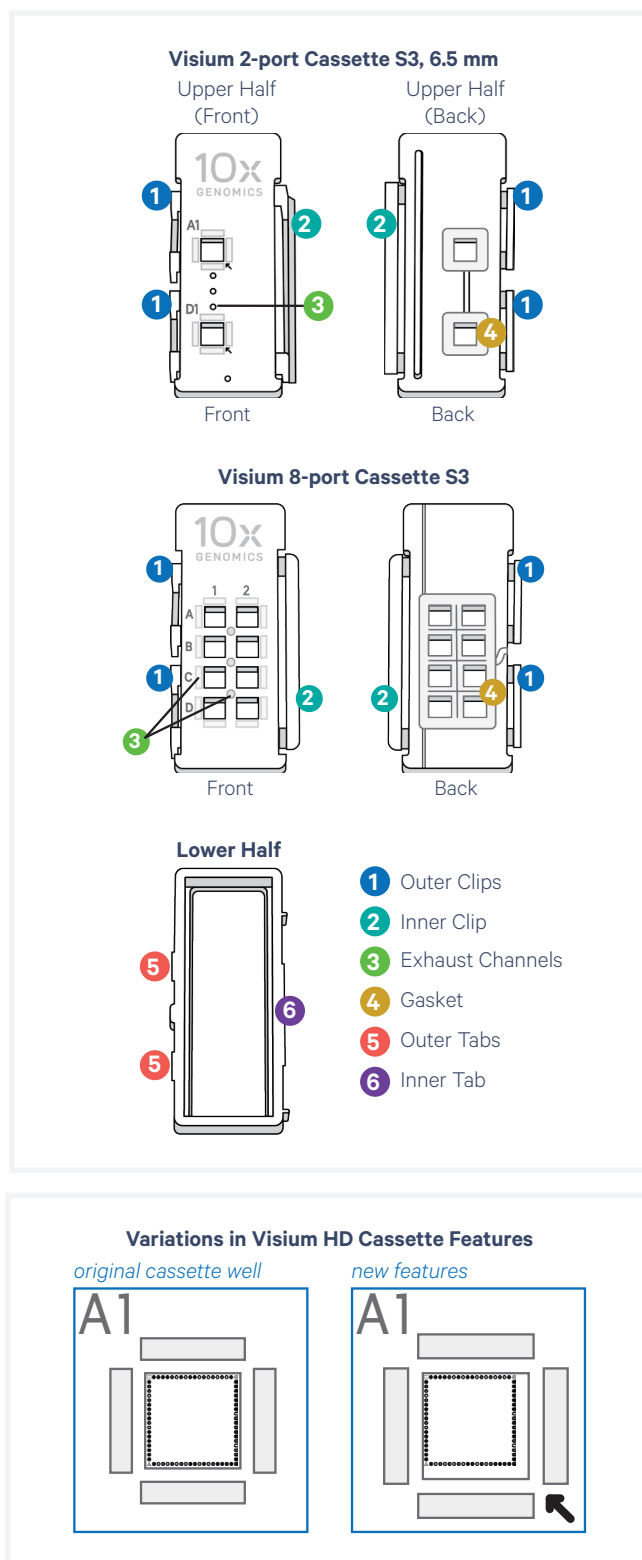
**!** If placing the top half of the cassette on a surface, ensure the gasket faces away from the surface so it does not collect debris.

Place slides in the cassette only when specified.

Applying excessive force to the slide may cause the slide to break.

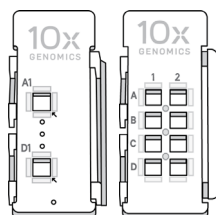
### Variations in Visium HD Cassette Features

All Visium HD cassettes have the same functionality and performance. For some cassettes, the well is slightly larger towards the bottom right corner to allow space for pipetting without damaging the hydrogel. An arrow points to the correct corner for inserting the pipette.



# Visium Cassette S3

## Visium Cassette Assembly (2 of 2)



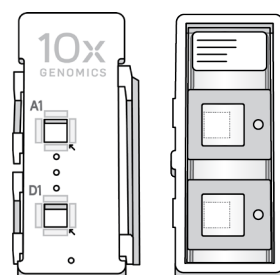
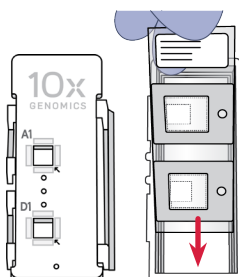
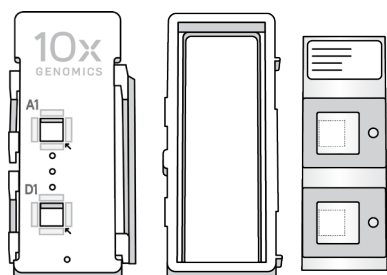
### Visium 2-port Cassette S3, Visium 8-port Cassette S3

Exercise caution when handling slide edges to prevent injury.  
Wear fresh gloves while assembling the cassette.

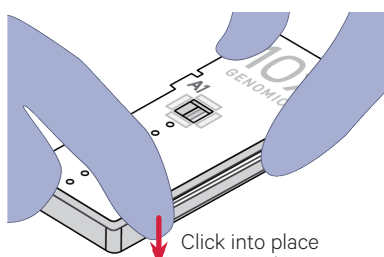
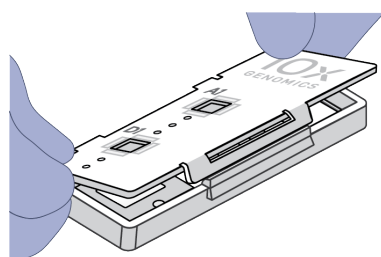
Slides and cassettes shown in instructions are representative.

## Assembly

- 1 Place upper and lower halves of cassettes and Visium slide on bench
- 2 Place Visium slide with active surface facing upwards into lower half of cassette.
- 3 Press slide down into grooves of the bottom half of the cassette until it sits firmly in place



- 4 Secure outer clips of top half with outer tab of bottom half
- 5 Press firmly on top and bottom of cassette until it clicks shut. Ensure that clips are completely secured over tabs.



## Removal

- 1 Pull inner clip up from inner tab to detach upper and lower halves of cassette
- 2 Open cassette by continuing to lift upper half upward
- 3 Lift slide out from lower half

