



1. Blocking
    - 1.1 Add **Blocking Buffer** (1x) to the entire sample area (approximately 40  $\mu$ l for each 1cm<sup>2</sup> area).
    - 1.2 Incubate for 60 min at +37 °C in a pre-heated humidity chamber.
  
  2. Primary antibody incubation
    - 2.1 Use the provided **Primary Antibody Diluent** (1x) to dilute your primary antibodies.
    - 2.2 Decant the Blocking Buffer and add enough of your antibodies to cover the sample area.
    - 2.3 Incubate for 60 min at +37 °C or overnight at +4 °C in a humidity chamber.
    - 2.4 Decant the antibody solution and wash slides for 3x5 min with 1x TBS-T\* in a staining jar under gentle agitation.
  
  3. Probe incubation
    - 3.1 Prepare the probes by diluting **Probe M1** and **Probe R2** in Probe Diluent (dilute 1:40 each).
    - 3.2 Add enough of the probes to cover the sample area.
    - 3.3 Incubate for 60 min at +37 °C in a pre-heated humidity chamber.
    - 3.4 Decant the solution and wash slides for 3x5 min with 1x TBS-T in a staining jar under gentle agitation.
  
  4. Reaction A
    - 4.1 Start preparing Reaction A by diluting **Buffer A** (5x) 1:5 in water. Vortex and spin down.
    - 4.2 Add **Enzyme A** (dilute 1:40) Mix gently by pipetting and spin down.
    - 4.3 Add enough Reaction A to cover the sample area.
    - 4.4 Incubate for 60 min at +37 °C in a pre-heated humidity chamber.
    - 4.5 Decant the solution and wash slides for 2x3 min with 1x TBS-T in a staining jar under gentle agitation.
  
  5. Reaction B
    - 5.1 Start preparing Reaction B by diluting **Buffer B** (5x) 1:5 in water. Vortex and spin down.
    - 5.2 Add **Enzyme B** (dilute 1:40). Mix gently by pipetting and spin down.
    - 5.3 Add enough Reaction B to cover the sample area.
    - 5.4 Incubate for 30 min at 37 °C in a pre-heated humidity chamber.
    - 5.5 Wash slides for 2x3 min with 1x TBS-T in a staining jar under gentle agitation.
  
  6. Reaction C
    - 6.1 Start preparing Reaction C by diluting **Buffer C** (5x) 1:5 in water. Vortex and spin down.
    - 6.2 Add **Enzyme C** (dilute 1:40). Mix gently by pipetting and spin down.
    - 6.3 Add enough Reaction C to cover the sample area.
    - 6.4 Incubate for 90 min at +37°C in a pre-heated humidity chamber.
    - 6.5 Decant the solution and wash slides for 2x10 min with 1x TBS in a staining jar under gentle agitation.
    - 6.6 Wash slides for 15 min with 0.1x TBS in a staining jar under gentle agitation.
  
  7. Mounting
    - 7.1 Tap off excess wash buffer from the slides.
    - 7.2 Mount the slides with a coverslip using water-based anti-fade mounting medium with DAPI.
    - 7.3 Wait for 15 minutes.
    - 7.4 Image your slides in a fluorescence or confocal microscope, using 20x objective or higher and filter set for DAPI and Texas red.
- Protect from light
- Protect from light

### Box 1: Catalog number ND0210

Material	Product Number	Amount	Storage
<b>Blocking Buffer (1x)</b>	ND00.1.1s	1000 µl	2–8°C  DO NOT FREEZE
<b>Primary Antibody Diluent (1x)</b>	ND00.1.7s	1000 µl	
<b>Probe Diluent (1x)</b>	ND00.1.2s	1000 µl	
<b>Probe M1 (40x)</b>	ND00.1.4s	25 µl	
<b>Probe R2 (40x)</b>	ND00.1.3s	25 µl	

### Box 2: Catalog number ND0220

Material	Product Number	Amount	Storage
<b>Buffer A (5x)</b>	ND00.2.1s	200 µl	-15 – -20°C  PROTECT FROM LIGHT
<b>Enzyme A1 (40x)</b>	ND00.2.2s	25 µl	
<b>Buffer B (5x)</b>	ND00.2.3s	200 µl	
<b>Enzyme B (40x)</b>	ND00.2.4s	25 µl	
<b>Buffer C (5x)</b>	ND00.2.5s	200 µl	
<b>Enzyme C (40x)</b>	ND00.2.6s	25 µl	

\*TBS-T (Tris-buffered saline supplemented with 0.05% Tween 20)

#### General guidelines

- Reaction volume depends on the sample size.
- Use best practices when pipetting to minimize reagents consumption.
- Centrifuge vials before pipetting.
- Completely defrost all buffer mixtures (A, B, C) at room temperature, vortex well before use.
- Vortex and spin-down all enzymes (A, B and C) before use.
- Keep enzymes on ice or on a frozen cold block.
- Wait to add enzymes until immediately prior to adding to the sample.
- Buffer C is a light-sensitive reagent. Always keep it protected from light.
- Remove excess washing buffer from samples before adding reagent.
- Do not allow slides/samples to dry.
- Preheat the humidity chamber before each step.
- Incubation times or temperatures other than those specified may give erroneous results.
- As with any product derived from biological sources, proper handling procedures should be used.
- Wear appropriate Personal Protective Equipment to avoid contact with eyes and skin.
- Unused solution should be disposed according to local regulation.

**IMPORTANT:** Appropriate precautions should be taken to avoid antibodies cross-contamination. Cross-contamination is the main source of unspecific background due to the high sensitivity of the assay.

**Avoid bulk washing methods when multiple antibodies are used.**