

DenHyb™ Hybridization Solutions

Insitu DenHyb solutions are very effective hybridization solutions for FISH. DenHyb solutions are compatible with a wide range of home-brewed or commercially available directly- and indirectly-labeled DNA probes: repeat sequence, paint, and unique sequence probes. DenHyb solutions can be used as hybridization solutions or diluents for home-brews or ready-to-use commercial probes. Two types of DenHyb™ solutions are available as follows:

Two Types of DenHyb™ Solutions

a) **cDenHyb** for cell FISH

- cDenHyb-1 solution for directly- and indirectly-labeled repeat sequence and paint probes
- cDenHyb-2 solution for directly- and indirectly-labeled unique sequence probes

b) **tDenHyb** for tissue FISH

- tDenHyb-1 solution for directly- and indirectly-labeled repeat sequence
- tDenHyb-2 solution for directly- and indirectly-labeled unique sequence probes

cDenHyb™ solutions are intended to be used for FISH on interphase cells, metaphase cells, or cultured cells. **tDenHyb™** solutions are intended to be used for FISH on paraffin-embedded tissues/cells. More detailed information is available under **cDenHyb™** or **tDenHyb™**.

Dilute or suspend labeled DNA probes in an appropriate DenHyb. Then perform your cell or tissue FISH procedure with the DNA probes (in DenHyb). More effective and convenient FISH can be achieved by using Insitu MetalTray FISH protocols which are based on the use of Metal Slide Tray and HybBox™ in conjunction with the use of

DenHyb. The Insitus Metal Tray FISH protocol is available upon request by e-mail. Please visit [Information Request](#) subpage.

If you perform FISH with Insitus DenHyb solutions using your in-house FISH protocol or protocol provided by vendors that sell DNA probes, a slight adjustment of your denaturation condition close to the Insitus Manual FISH protocols would maximize hybridization signals.

If you do FISH with your home-brewed DNA probes, the use of DenHyb will not only increase your productivity but also eliminates the need for time-consuming search for hybridization solution for your FISH. In addition, it will allow you to save your precious, home-brewed probes. If you conduct FISH with commercially available DNA probes, the expensive commercial probes can be used at much lower concentration (by 5- to 40-fold depending on probes) than is recommended, which increases considerable cost savings per assay.

In summary, the use of both cDenHyb™ and tDenHyb™ for cell and tissue FISH would not only allow you to reduce the cost of commercial probes, but also allow you to save your precious, home-brewed probes.

Application and Properties of DenHyb™ Solutions:

- Very effective Hybridization solution for FISH or ISH.
- Compatible with a wide range of home-brewed or commercially available DNA probes.
- Friendly with most of FISH or ISH protocols.
- Stable at least for a year when stored at or below -20°C.
- For research and laboratory use only.

Usage of DenHyb:

- Dilute or suspend your home-brewed or commercial, directly- or indirectly-labeled DNA probes in an appropriate DenHyb solution
 - e.g., 200-500 fold dilution for commercial repeat sequence/centromeric probes,
 - 50-100 fold dilution for commercial unique sequence probes, or
 - 5- 10 fold dilution for commercial, ready-to-use pre-diluted probes
- Then perform your FISH procedure with the diluted DNA probes.

Advantages to using DenHyb solutions™:

- a) Reduce the cost of commercial probes for FISH
- b) Saves precious home-brewed probes for FISH
- c) Avoids a time-consuming process of finding or creating

hybridization solution for your FISH projects.

Publications citing the use of DenHyb solutions for Cell and tissue FISH (on paraffine-embedded tissue sections) are listed in [citations page](#).

Available DenHyb solutions are as follows:

- [cDenHyb Solutions for cell FISH \(i.e., interphase and metaphase FISH\)](#)
- [tDenHyb Solutions for tissue FISH \(i.e., FISH on paraffin-embedded tissue/cells slides\)](#)

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