Nick Translation Kit

SKU: NTK-050
Size: 50 Reactions

Intended Use:
For Research Use Only

Application:
Fluorescence In Situ Hybridization (FISH)
Chromogenic In Situ Hybridization (CISH)

Composition:

Component	Concentration	Volume
Nick Translation Buffer	10x	250µL
dNTP Mix	0.2mM	500µL
DNA Polymerase	10,000U/mL	125µL
DNase I Buffer	10x	1300µL
DNase I	2,000U/mL	5µL
Control DNA	0.04µg/µL	125µL

Storage, Handling, Shelf Life, and Disposal:
Store product at -20°C; avoid frequent freezing and thawing. Expiration date noted on product. Gloves and other protective equipment should be used when handling the Nick Translation Kit. Dispose as per local regulations.

Warning and Precaution:
Product does not contain any human or animal components. See Safety Data Sheet (SDS) for more detailed safety and handling information. Do not use expired kit. Avoid cross-contamination. Read instructions for use in full before use.

Limitations:
This product is for research use only.
Kit performance is dependent on sample preparation, sample quality, and proper storage.
This product is only for use by trained laboratory professionals.

Technical Note:
Kit is sufficient for one-time use of 50 reactions or five uses consisting of 10 reactions each.

Contact and Support:
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Reagent(s) Not Provided:
- Fluorescent or Chromogenic dUTP Dye
- Nuclease-Free Water

Equipment Not Provided:
- 0.2mL Strip Tubes
- 1.5mL Microcentrifuge Tubes
- Ice Bucket
- Minifuge
- Pipettes (P10, P20, P200, P1000)
- Thermal Cycler
- Vortex

Nick Translation Protocol:
1. In 0.2mL strip tubes, prepare 1µg of each DNA sample in 25µL of nuclease-free water.
2. Add 2.5µL of dUTP dye to the appropriate strip tube. Protect from light once dye has been added.
3. Prepare the DNase I Mix on ice:

Component	Volume (µL)
DNase I	1
10x DNase I Buffer	249

*The DNase I Mix must be prepared fresh at the time of use. Discard unused mix.

4. Prepare the following Master Mix on ice in a 1.5mL microcentrifuge tube:

Component	Volume (µL)/Rxn
10x Nick Translation Buffer	5
dNTPs	10
DNA Polymerase	2.5
DNase I Mix	5

5. Gently mix and spin down the Master Mix tube.
6. Add 22.5µL of Master Mix to each strip tube containing DNA.
7. Gently mix and spin down the strip tubes.
8. Place the strip tubes into a thermal cycler using the following program:

Step	Temperature (°C)	Time
1	15	2 Hours
2	75	10 Minutes
3	4	∞

9. Once the program is complete, reactions can be stored at 4°C.