

**Catalog Number:** DAB-KT-135-R-NP

**Description:** 135 Test

**Intended Use:**

For Research Use Only. Not for use in diagnostic procedures.

**Summary & Explanation:**

The NISH DAB Kit is a chromogen system designed for use in in situ hybridization (ISH) applications to enable visualization of probe-target hybridization events. The kit provides the components necessary to generate a visible colorimetric signal when used in conjunction with HRP-based detection systems.

This kit includes DAB chromogen and DAB buffer, which work together to produce a localized brown precipitate at the site of hybridization. When applied following HRP-mediated detection, the reaction results in a stable, insoluble signal that can be visualized using a brightfield microscope.

**Principle of Procedure:**

Following hybridization of a NISH probe and subsequent HRP-based detection, the DAB chromogen and Buffer are mixed according to the protocol used.

Upon application to the tissue section, the horseradish peroxidase (HRP) enzyme catalyzes the oxidation of DAB, resulting in the formation of a brown, insoluble precipitate at the site of hybridization.

This chromogenic reaction enables visualization and localization of target nucleic acids within preserved tissue morphology when examined using a brightfield microscope.

**Species Reactivity:** Human

**Known Application:** *in situ* hybridization on FFPE tissue

**Reagents Provided:**

NISH DAB Kit is comprised of 2 solutions in pre-filled vials.

Kit SKU	Component SKU	Component Description	Quantity x Volume
DAB-KT-135-R-NP	NPRI10020T135	NISH DAB Chromogen	1 x 1.5 mL
	NPRI10019T68	NISH DAB Buffer	2 x 30 mL

**Reconstitution, Mixing, Dilution, Titration:**

The NISH DAB Kit is optimized and ready to use with Empire NISH Probes and ancillary reagents. No reconstitution, mixing, dilution or titration is required.

**Storage and Stability:**

Store probe at 4°C and away from light. The product is stable to the expiration date printed on the label, when stored under these conditions. Do not use after expiration date.

**Materials and Reagents Required but Not Provided:**

- NISH Probe
- Cover (NPRI10002T1300)
- High-AR (NPRI10003L2T2250)
- TBS Tween 20 Buffer 10X (NPRI10007MMT84)
- Cleaning Solution (NPRI10008MMT84)
- DAB Enhancer (NPRI10005L2T3600)
- DEWAX (NPRI10001T280)
- Contrast Hematoxylin HDH3 (NPRI10006L2T3600)
- NISH Detect HRP Kit (HRP-KT-42-R-NP)
- Light Microscope (40-400X magnification)
- NeoPath Pro Automated Stainer (NPP0001)

**Instructions for Use:**

This kit is intended for use with the NeoPath Pro. Refer to the User Manual for specific instructions for use. Protocol parameters in the Protocol Editor are dependent on the NISH Probe being used. Please refer to the NISH Probe datasheet for protocol parameters.

**Limitations:**

This product is provided for Research Use Only (RUO) and is not for use in diagnostic procedures. Suitability for specific applications may vary and it is the responsibility of the end user to determine the appropriate application for its use.

**Precautions:**

1. DAB is known to be a suspected carcinogen.
2. Do not expose DAB components to strong light or direct sunlight.
3. DAB may cause sensitization of skin. Avoid contact with skin and eyes.
4. Wear gloves and protective clothing and take reasonable precautions when handling DAB is classified as a danger and may cause cancer and is suspected of causing genetic defects.
5. Specimens, before and after fixation, and all materials exposed to them should be handled as if capable of transmitting infection and disposed of with proper precautions. Never pipette reagents by mouth and avoid contacting the skin and mucous membranes with reagents and specimens. If reagents or specimens come in contact with sensitive areas, wash with copious amounts of water.<sup>1</sup>



Health Hazard



Irritant



Corrosive (to skin)

**Technical Support:**

Contact Empire Technical Support at +1.800.715.5880 for questions regarding this product.

**References:**

1. Clinical and Laboratory Standards Institute (CLSI). Protection of Laboratory workers from occupationally Acquired Infections; Approved Guideline-Fourth Edition CLSI document M29-A4 Wayne, PA 2014.