

STAT-Q™ MOUSE STAINING SYSTEM

Background- Free, minimal wash Rapid Immuno-Peroxidase staining system for staining human and animal tissues & cells

For Staining MOUSE Primary Antibodies

- **Large volume 60 ml STAT-Q Mouse DAB Staining System:** #NB314KMD, 800-1,000 slides
- **Small volume 20 ml STAT-Q Mouse DAB Staining System:** #NB314KMD-20, 200-300 slides

INTRODUCTION

Immunostaining detection systems are used to determine the presence, localization and density of antigens in binding assays. In immunohistochemistry (IHC) and immunocytochemistry (ICC) antigens are visualized by enzyme immunochemical assays.

PRODUCT DESCRIPTION

STAT-Q™ Rapid IHC System is a minimal-wash IHC/ ICC staining system bio-engineered for No-Background, Minimal wash and short incubation steps. This staining system is universally applicable to staining all Mouse monoclonal and mouse polyclonal primary antibodies. STAT-Q staining kit is applicable to staining human and animal tissues and cell preparations. This system is ideal for staining all tissues and cell preparations regardless of their method of fixation and processing. STAT-Q stains paraffin sections, cryostat sections, cytocentrifuge preparations and cell smears. **STAT-Q™ Rapid Staining System** is designed as a highly sensitive 3-Step system for IHC & ICC staining of human and animal tissues/ cells. This system is designed to be virtually free of background and does not require protein or serum blocking when staining human tissues. However, when staining animal tissues, a 30-minute blocking step with Innovex Background Buster prior to application of primary antibody is highly recommended. **STAT-Q™ Staining System** is also designed to eliminate the need for re-titration of primary antibodies when switching over to this system. When employing STAT-Q system, no adjustment of currently employed primary antibody dilutions is necessary; Simply replace STAT-Q in place of the current detection system. In addition to shorter incubation steps, STAT-Q staining system also offers the choice of increased primary antibody dilution and/or decreased primary antibody incubation time especially when used with Innovex Signal Enhancing Wash Buffer in place of PBS or tris buffers for the rinse steps.

SYSTEM COMPONENTS (reagents provided in the kit)

- PeroxBlock (peroxidase block).
- Monovalent anti Mouse Secondary Linking antibody.
- Stabilized horseradish peroxidase (HRP) enzyme (with no loss of activity of peroxidase enzyme with time).
- Stable 2-component Liquid DAB.
- Quick DAB Enhancer (optional) but recommended for weak signals.
- Background Buster (optional).

APPLICATION / INTENDED USE

This product is intended for IHC & ICC staining of mouse monoclonal and mouse polyclonal primary antibodies in human and animal tissues and cell preparations.

SYSTEM COMPONENT SPECIFICATIONS

Recommended incubation times for the system are:

- PeroxBlock: 15-minutes (stable peroxidase block is included in the kit).
- Mouse primary antibody (*not provided*): Follow suppliers recommended incubation time for the primary antibody employed.
- Secondary Linking Antibody: **10-minutes.**
- Horseradish Peroxidase (HRP) enzyme: **10-minutes.**
- Stable Liquid DAB chromogen: **5-minutes.**
- Quick DAB Enhancer: **2-minutes.**
- Background Buster (optional) for eradication of background staining.

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INSTRUCTIONS

(ALL INNOVEX PRODUCTS ARE DESIGNED TO BE IMPLEMENTED AT ROOM TEMPERATURE (NO HEAT IS REQUIRED)).

NO protein or serum blocking required when staining human tissues.

A 30-minute blocking with Innovex Background Buster is highly recommended when staining animal tissues but not required when staining human tissues.

10-second rinses in between incubations steps are sufficient. No extensive washes are required when staining with Innovex staining systems.

1. Following deparaffinization quench endogenous peroxidase activity by applying PeroxBlock for 15-minutes and rinse with water for 30-seconds. In absence of PeroxBlock; achieve the same aim by immersing tissue slides in freshly made 3% hydrogen Peroxide (H₂O₂) prepared in DI water. This step is essential to eliminate red blood cell staining.
2. Perform Retrieval; Retrieval with INNOVEX Uni-Trieve is highly recommended.
3. Incubate the tissue section or cell smear for **30 minutes to 1-hour** with mouse primary antibody (not provided); Follow manufacturer' recommended titer and incubation time for the primary antibody employed.
4. Rinse with PBS or INNOVEX HRP-Enhancing Wash Buffer for **10-seconds**.
5. Incubate with Anti-Mouse Secondary Linking Antibody for **10-minutes**.
6. Rinse with PBS or HRP-Enhancing Wash Buffer for **10-seconds**.
7. Incubate with Peroxidase (HRP) enzyme for **10-minutes**.
8. Rinse with PBS or HRP-Enhancing Wash Buffer for **10-seconds**.
9. Incubate with mixed DAB/substrate solution for **5-minutes** (*See chromogen mixing protocol below*).
10. Rinse thoroughly with water.
11. Apply DAB Enhancer and incubate for 2-minutes; Rinse with tap water; This step is optional.
12. Counterstain with hematoxylin (Innovex Product # NB305).
13. Mount from water with permanent "Advantage Mounting Media" (Innovex Product #NB300) OR Mount slides with xylene based mounting media.

DAB Substrate/Chromogen Mixing Protocol

- **MIX DAB by adding 1 drop of DAB chromogen** (component 2) **to 1 ml of Ready-To-Use Substrate Buffer** (component 1) in the provided mixing tube and mix. Left over mixed DAB substrate/chromogen solution is stable for 1-week in refrigerator. Using left over DAB solution minimizes reagent waste and disposal cost of unused DAB.
- When darker DAB stain is desired, apply Innovex Quick DAB Enhancer solution (product# NB308) for 2-minutes following the water rinse of DAB step and before counterstaining. DAB Enhancer is included in the kit.

STORAGE CONDITIONS

Store in refrigerator at 2-8°C through expiration date noted on the vials.

Important Notes:

- Innovex **STAT-Q™ (3-step)** staining systems and components are **minimal-wash, No-background** staining Reagents. A one-time rinse step of 10-second in between incubation steps is sufficient.
- Innovex **STAT-Q™** staining systems and primary antibodies are **free of background**. Innovex STAT-Q staining systems **do not require normal serum blocking or protein blocking when staining human tissues.**

FOR PROFESSIONAL AND RESEARCH USE

FOR ADDITIONAL TECHNICAL SUPPORT

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