INNOVEX biosciences

STAT-Q™ IHC STAINING SYSTEM for HUMAN and ANIMAL TISSUES

*No-Wash, Background Free, Rapid Immuno-Peroxidase staining for both **human and animal tissues***

For staining MOUSE & RABBIT& RAT Primary Antibodies

□ **60 ml of STAT-Q™ 3-Step Peroxidase Staining System:**
NB314KLD (with DAB), approx. 800-1,000 slides *(at least 2 year shelf-Life)*

□ **20 ml of STAT-Q™ 3-Step Peroxidase Staining System:**
NB314KLD-20 (with DAB), approx. 200-300 slides *(at least 2 year shelf-Life)*

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INTRODUCTION

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

PRODUCT DESCRIPTION

STAT-Q™ Rapid IHC System is a minimal-wash IHC staining system bio-engineered for
No-Background, 5-second washes and short incubation steps. This staining system is universally applicable to staining Mouse, Rabbit and Rat primary antibodies and also to staining all human tissues as well as all animal species tissues and cell preparations. This system is ideal for staining all tissues and cells regardless of their method of processing (e.g., paraffin sections, cryostat sections, cytocentrifuge preparations or cell smears).
STAT-Q™ Rapid IHC System is designed as a highly sensitive 3-Step system for IHC staining of human and animal tissues. This system detects Mouse, Rat and Rabbit primary antibodies. The system is designed to be virtually free of background and it 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™ Rapid IHC 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 detection system also offers users the choice of increased primary antibody dilution and/or decreased primary 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)

- Peroxide Block: 15 minutes.
- Multivalent anti Mouse, anti Rabbit and anti Rat Secondary Linking antibody.
- Stabilized horseradish peroxidase (HRP) Label (with no loss of activity of peroxidase enzyme with time).
- Stable Turbo action 2-component Liquid DAB.
- Quick DAB Enhancer (optional) but recommended.

APPLICATION / INTENDED USE

This product is intended for IHC staining of mouse, rabbit and rat primary antibodies in human and animal tissues and cell preparations.

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SYSTEM COMPONENT SPECIFICATIONS

Recommended incubation times for the system are:

- Peroxide Block: 15 minutes (stable peroxide block is included in the kit).
- Mouse or Rabbit or Rat primary antibody *(not provided):* Follow suppliers recommended incubation time for the primary antibody employed.
- Secondary Linking Antibody: **10 minutes.**
- Horseradish Peroxidase (HRP) Label: **10 minutes.**
- Stable Liquid DAB chromogen: **5 minutes.**
- Quick DAB Enhancer: **2 minutes**

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 tissue. A 30-minute blocking with Innovex Background Buster is highly recommended when staining animal tissues. *A 5 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 INNOVEX STABLE PEROXIDE BLOCK for 15 minutes; OR in absence of Peroxide Block; achieve the same aim by immersing tissue slides in freshly made 3% hydrogen Peroxide (H_2O_2) prepared in DI water. This step is essential to eliminate red blood cell staining.
2. Rinse with water for **30 seconds.**
3. Incubate the section or smear for **10-30 minutes** with mouse, rabbit or rat primary antibodies (not provided); Follow manufacturer' recommended incubation time for the primary antibody employed.
4. Rinse with PBS or HRP-Enhancing Wash Buffer for **5 seconds.**
5. Incubate with Secondary Linking Antibody for **10 minutes**.
6. Rinse with PBS or HRP-Enhancing Wash Buffer for **5 seconds.**
7. Incubate with Peroxidase (HRP) label for **10 minutes**.
8. Rinse with PBS or HRP-Enhancing Wash Buffer for **5 seconds.**
9. Incubate with mixed DAB/substrate solution for **5 minutes** *(See chromogen mixing protocol below).*
10. Rinse in tap water.
11. Apply DAB Enhancer and incubate for 2-minutes; Rinse with tap water.
12. Counterstain with hematoxylin (Innovex Product # NB305).
13. Mount slides with xylene based mounting media OR with aqueous permanent "Advantage Mounting Media" (Innovex Product #NB300).

DAB Substrate/Chromogen Mixing Protocol

- **MIX DAB by adding 2 drops of DAB chromogen** (component 2) **to 2 ml of Ready-To-Use Substrate Buffer** (component 1) in the provided graduated mixing tube and mix. Left over mixed DAB substrate/chromogen solution is stable for one week when kept refrigerated. This minimizes the reagent waste and disposal cost of 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^{o}C through expiration date noted on the vials.

Important Notes:

- Innovex **STAT-Q™ (3-step)** staining systems and components are **no wash, no background** staining Reagents. A one time rinse step of 5-second in between incubation steps is sufficient.
- Innovex **STAT-Q™ (3-step)** 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 RESEARCH USE ONLY

FOR ADDITIONAL TECHNICAL SUPPORT
CALL: 1.800.622.7808 US and Canada
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