

## 2-step Plus Poly-HRP Anti Rabbit/Mouse IgG Detection System(with DAB Solution)

**Cat. No: E-IR-R213**

**Size: 3 mL/ 6 mL/ 18 mL/ 50 mL**

Cat	product	3 mL	6 mL	18 mL	50 mL	Storage
E-IR-R213A	3% H <sub>2</sub> O <sub>2</sub>	3 mL	6 mL	18 mL	50 mL	2~8°C
E-IR-R213B	Polymer Helper (Ready-to-Use)	3 mL	6 mL	18 mL	50 mL	2~8°C
E-IR-R213C	Polyperoxidase-anti-Mouse/Rabbit IgG (Ready-to-Use)	3 mL	6 mL	18 mL	50 mL	2~8°C
E-IR-R213D	Normal Goat Blocking Buffer (Ready-to-Use)	3 mL	6 mL	18 mL	50 mL	2~8°C
E-IR-R213E	DAB Concentrate (25×)	120 µL	240 µL	720 µL	2 mL	2~8°C
E-IR-R213F	DAB Substrate	3 mL	6 mL	18 mL	50 mL	2~8°C
<b>Manual</b>		<b>One</b>		<b>Copy</b>		

### Introduction

2-step plus is a two-step immunohistochemical broad spectrum detection reagent. It polymerizes monovalent Fab fragments of secondary antibody and enzyme, which replaces the secondary antibody and tertiary antibody in traditional method, can directly amplify the binding signal of antibody-antigen. This method not only retains the specific binding ability of antibody with antigen, but also can effectively avoid space steric hindrance caused by excessive polymer molecules. Compared with the traditional SP three-step method, this kit has the characteristics of simple, rapid, high-sensitivity. This system abandons the using of biotin, so it can avoid background staining by endogenous biotin. It can be used in IHC, in which the primary antibody is monoclonal/polyclonal antibody derived from rabbit/mouse. The unique polymer auxiliary agent for macromolecular detection system can detect the binding primary antibody better. Diluent for DAB concentrated solution has been provided in this kit to avoid the influence of the different water acidity and alkalinity on the DAB Chromogenic Agent.

### Sample dyeing

1. Dewax and hydrate the paraffin section.
2. Repair antigen of the tissue section according to special requirements of applied primary antibody.
3. Incubate with E-IR-R213A (3% H<sub>2</sub>O<sub>2</sub>) for 10 min to eliminate endogenous peroxidase activity.
4. Wash with PBS or TBS, 2 min×3 times.
5. Drain the PBS with absorbent paper, then add E-IR-R213D (Normal Goat Blocking Buffer) to the section. Incubate for 30 min at 37°C.
6. Dry the liquid around the section with absorbent paper, and draw a circle around the tissue with an oily pen. Add primary antibody with proper dilution ratio, incubate at room temperature or 37°C for 1~2h or at 4°C overnight (then rewarm at 37°C for 30 min). Wash with PBS or TBS, 2 min ×3 times.
7. Add E-IR-R213B (Polymer Helper), incubate at room temperature or 37°C for 20 min. Wash with PBS or TBS, 2 min×3 times.
8. Add E-IR-R213C(Polyperoxidase-anti-Mouse/Rabbit IgG), incubate at room temperature or 37°C for 20~30 min. Wash with PBS or TBS, 2 min×3 times.
9. Add 1 drop (approximately 40 µL) of E-IR-R213E (DAB Concentrate) into each 1 mL of E-IR-R213F (DAB Substrate), mix fully and the mixed reagent is the DAB Working Solution. Prepare fresh solution before use and the prepared solution should be stored in the dark. Fresh prepared DAB Working Solution is valid within 4 hours and the unused solution must be abandoned.
10. Add freshly prepared DAB staining solution to each slice, observe under a microscope, and the positive signal is brownish yellow or brown. If the color is obvious or the color development time exceeds 10 minutes, rinse the slice with tap water to terminate the color development, do not over-stain.
11. Wash the section with deionized water to terminate the chromogenic reaction, then operate the procedures of counterstaining, dehydrating, transparentizing and sealing.

### Storage

Store at 2~8°C, shading light. Avoid of freezing. Valid for 12 months. The reagents are valid within 6 months after opening.