

POLYCLONAL ANTIBODY

# Anti-IgG (H+L chain) (Goat) pAb-HRP

Code No.	Quantity	Form
546	1 mL	Rabbit Fab'

**SOURCE:** This product was produced by the following method.

- (1) The specific antibody was produced from rabbit serum that was immunized with the goat IgG (H+L chain) using ion exchange chromatography.
- (2) After absorbed the reactivity to human IgG using affinity chromatography, the IgG fraction was digested with Pepsin in order to produce the  $F(ab)'_2$ .
- (3) After the F(ab)'<sub>2</sub> was reduced, the resulting Fab' was jointed to HRP (horse-radish peroxidase) by the maleimide-ester.
- (4) Subsequently this product was purified from them using gel chromatography.

**FORMULATION:** 1mL volume of phosphate buffer containing preservative and stabilizer.

**STORAGE:** This antibody solution is stable for one year from the date of purchase when stored at 4°C.

**REACTIVITY:** This antibody reacts with goat IgG (H+L chain) and sheep IgG (H+L chain).

### **APPLICATIONS:**

Western blotting; 1:5,000-1:10,000 <u>ELISA</u>; 1:5,000-1:10,000 <u>Immunohistochemistry</u>; Not recommended <u>Immunocytochemistry</u>; Not tested <u>Flow cytometry</u>; Not tested

Detailed procedure is provided in the following **PROTOCOLS**.

### **INTENDED USE:**

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

**NOTE:** Use of sodium azide as a preservative substantially inhibits the enzyme activity of horseradish peroxidase.

The descriptions of the following protocols are examples. Each user should determine the appropriate condition.

## PROTOCOLS: <u>SDS-PAGE & Western Blotting</u>

- 1) Wash cells (approximately  $1 \times 10^7$  cells) 3 times with PBS and resuspend them in 1 mL of Laemmli's sample buffer.
- 2) Boil the samples for 2 minutes and centrifuge. Load 20 μL of sample per lane on a 1-mm-thick SDS-polyacrylamide gel and carry out electrophoresis.
- Blot the protein to a polyvinylidene difluoride (PVDF) membrane at 1 mA/cm<sup>2</sup> for 1 hour in a semi-dry transfer system (Transfer Buffer: 25 mM Tris, 190 mM glycine, 20% MeOH). See the manufacturer's manual for precise transfer procedure.
- 4) To reduce nonspecific binding, soak the membrane in 5% skimmed milk (in PBS, pH 7.2) for 1 hour at room temperature, or overnight at 4°C.
- 5) Incubate the membrane with primary antibody diluted with PBS, pH 7.2 containing 1% skimmed milk for 1 hour at room temperature. (The concentration of antibody will depend on the conditions.)
- 6) Wash the membrane with PBS-T [0.05% Tween-20 in PBS] (5 minutes x 3 times).
- 7) Incubate the membrane with secondary antibody as suggested in the **APPLICATIONS** diluted with 1% skimmed milk (in PBS, pH 7.2) for 1 hour at room temperature.
- 8) Wash the membrane with PBS-T (10 minutes x 3 times).
- 9) Wipe excess buffer off the membrane, and incubate membrane with an appropriate chemiluminescence reagent for 1 minute.
- 10) Remove extra reagent from the membrane by dabbing with a paper towel, and seal it in plastic wrap.
- 11) Expose the membrane onto an X-ray film in a dark room for 10 minutes.
- 12) Develop the film under usual settings. The conditions for exposure and development may vary.

### ELISA

- 1) Dilute antigen in coating buffer (0.1 M phosphate buffer).
- 2) Add 100  $\mu$ L to each well. Cover the plate and incubate overnight at 4°C.
- 3) Wash the plate 4 times with PBS containing 0.05% Tween-20 (PBS-T).
- 4) Block with blocking buffer (1% BSA, 5% Sucrose, 0.09% NaN<sub>3</sub> in PBS) at 37°C for 1 hour. Wash as in step 3).
  \*Azide may react with copper or lead in plumbing system to form explosive metal azides. Therefore, always flush plenty of water when disposing materials containing azide into drain.
- 5) Distribute 100  $\mu$ L/well of the capture antibody to each well. Incubate at 37°C for 1 hour. Wash as in step 3).

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- 6) Distribute 100 μL/well of 1:5,000-10,000 Anti-IgG (H+L chain) (Goat) pAb-HRP (MBL; code no. 546) polyclonal antibody to each well.
- 7) Incubate at room temperature for 1 hour. Wash as in step 3).
- 8) Distribute 100  $\mu$ L/well of the substrate solution (tetramethyl benzidine solution).
- 9) Incubate at room temperature for 30 minutes.
- 10) Distribute 50  $\mu$ L/well of 2 M H<sub>2</sub>SO<sub>4</sub> to each well and stop enzyme reaction.
- 11) After gentle mixing, determine the absorbance at 450 nm of each well by a spectrophotometer.

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