Anti β-tubulin Antibody-HRP

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1. Product Description

1.1 Product Description

β-Tubulin, also known as tubulin, is a cytoskeletal protein that exists in two forms: α-tubulin and β-tubulin. These two subunits bind tightly to form a heterodimer. Comprising 455 amino acids with a molecular weight of 55 kDa, β-tubulin is characterized by stable expression levels. Due to this consistency, it is widely utilized as a loading control in Western blotting (WB) and is frequently employed in immunostaining to visualize microtubule structures within cells.

Anti β-tubulin Antibody-HRP is a conjugate produced by chemically linking Horseradish Peroxidase (HRP) to the β-tubulin antibody. During WB detection, the addition of chemiluminescent substrates (Solution A and Solution B, typically Luminol and Hydrogen Peroxide) initiates a reaction. Under the catalysis of HRP, Luminol reacts with Hydrogen Peroxide to generate a peroxide intermediate. This intermediate is unstable and rapidly decomposes, forming an excited-state electron configuration that emits light. The subsequent transition of this excited intermediate back to its ground state produces fluorescence, thereby enabling the detection of the β-tubulin loading control protein.

1.2 Basic Information

Antibody Source: Recombinant Antibody
Cross Reactivity: Human, Mouse, Rat
Clone Type: Monoclonal Antibody
Conjugate: Horseradish Peroxidase (HRP)
Purification Methodr: Protein A Affinity Purification
Storage Buffer: 1×PBS (pH 7.4), 0.05% ProClin 300, 50% Glycerol
Storage Conditions: Shipped with dry ice. Stable for 2 years at -20°C. Avoid freeze-thaw cycles.

2. Product Applications

WB: 1:1000-1:5000

3. Precautions

1）This product is an HRP-conjugated antibody. Store at -20°C or -80°C and protect from light.
2）This product exhibits high sensitivity. Please strictly adhere to the recommended dilution ratios provided in the manual for Western Blotting (WB) to avoid potential non-specific bands.
3）Ensure the antibody diluent completely covers the membrane during incubation to avoid air bubbles, which can impede proper transfer and antibody binding.
4）Incubation at 37°C for 30–60 minutes typically yields a strong signal; incubation at room temperature may require a longer duration.

4. Reference Information

1）Sample Information: 293, murine EL4-B5 cell lines.
2）Sample Processing: After washing 3×10^6 cells three times with PBS, resuspend in 1 ml PBS. Mix 10 µl of the suspension with 10 µl of 2× loading buffer and denature by boiling at 100°C for 10 min.
3）Loading Volume: 10 µl (containing 2× loading buffer).
4）Antibody Dilution Ratios: Dilute Anti β-tubulin Antibody-HRP in 5 ml antibody dilution buffer at the following ratios: 1 µl (1:5000)and 5 µl

(1:1000).

5) Antibody Incubation Conditions: Incubate at 37°C with agitation for 30 min.

6) Results:

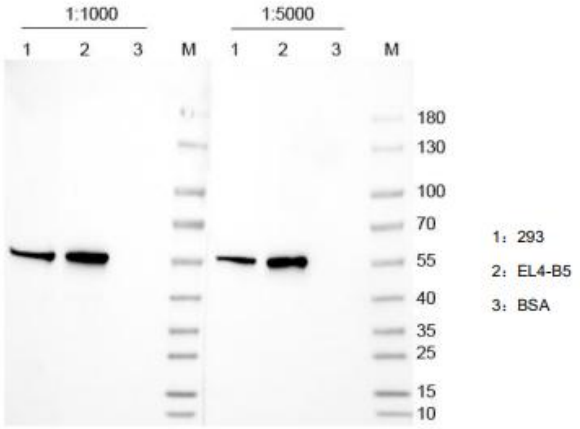

Figure 1. Western Blot Analysis of β-tubulin Antibody in Various Cell Lines

As shown in the figure, the Anti β-tubulin Antibody-HRP detects β-tubulin protein across different cell lines, yielding a single band at approximately 55 kDa,No signal was observed in the BSA negative control.

5.Product Ordering

Product	Cat.No.	Size
Anti β-tubulin Antibody-HRP	BP5020-01	20μl
	BP5020-02	100μl
	BP5020-03	1ml

6.Related Products

Product	Name	Cat.No.
Whole Cell Lysate Loading Control Antibod	Anti GAPDH Antibody-HRP	BP5018
	Anti Hsp90 Antibody-HRP	BP5019
Cytoskeletal Loading Control Antibody	Anti β-tubulin Antibody-HRP	BP5020
Nuclear Loading Control Antibody	Anti Histone H3 Antibody-HRP	BP5021