

# Horseradish Peroxidase (HRP)

## LABELS & CONJUGATES

### Enzyme, lyophilized from roots of horseradish

Cat. no. 4120

#### Product Characteristics

Horseradish Peroxidase (HRP) is derived from the root extracts of the horseradish plant. HRP uses H<sub>2</sub>O<sub>2</sub> to oxidize both organic and inorganic compounds. Antibody conjugates, used in ELISA, membrane & IHC applications, biosensors etc. can be developed when coupling HRP to antibodies. HRP is purified by large scale extraction and purification of horseradish roots by means of ultrafiltration, protein precipitation ion exchange and hydrophobic interaction chromatography, resulting in a highly purified, salt free lyophilized product.

In ELISA, the main colorimetric substrate for HRP is TMB (3, 3', 5, 5'-tetramethylbenzidine). TMB produces a deep blue color during the enzymatic degradation of hydrogen peroxide by HRP, and the addition of an appropriate stop solution gives a clear yellow color that absorbs at 450nm.

#### Composition & Properties

Appearance : Lyophilized powder. Clear solution at 5 mg/mL in deionised water  
Activity : ≥250 U/mg material, Pyrogallol  
Purity : Rz (A403/A275) ≥3.0  
Mol. Weight : App. 40 kDalton

This HRP is free of BSA, azide, mercury or other toxic preservative formulations.

#### Tips & Tricks

- The antibodies or antigens conjugated with HRP either can be stored at 2-8 °C as a concentrated stock solution or diluted in an appropriate buffer to the desired assay dilution range.
- For the stabilization of a pre-diluted conjugate, we recommend using the HRP-StabilPLUS (cat. no. 4530).

#### Handling & Storage

- Store dry at -20 °C or below.
- Allow to reach room temperature before opening.
- Re-desiccate and reseal the product before returning to storage.



Our Immunoassay Solutions are eco-friendly, creating a healthy work environment and preserving natural resources, while helping our customers fulfill significant regulatory requirements. **We call it ECO-TEK.**