



Product Data Sheet

Cat # RP-1467

Horseradish Peroxidase

**Size:** 20 mg

The enzyme horseradish peroxidase, found in horseradish, is used extensively in molecular biology and in antibody amplification and detection, among other things. For example, "In recent years the technique of marking neurons with the enzyme horseradish peroxidase (HRP) has become a major tool. In its brief history, this method has probably been used by more neurobiologists than have used the Golgi stain since its discovery in 1870." Horseradish peroxidase is also highly used in techniques such as Western blotting and ELISAs. HRP is widely used as an enzymatic label in immunoassays. Usually, the enzyme is coupled to antibodies, lectins or haptens. Coupling to antibodies etc. may be performed through the carbohydrate side chains of the HRP.

**Usage:**

This item is for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

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**Source:** Root extracts of horseradish HRP consists of the basic isoenzyme having a molecular weight of 44 kDa. The Horseradish Peroxidase is purified by affinity chromatography, which results in an enzyme of high specific activity and purity.

**Applications and Suggested Dilutions:** It is recommended to reconstitute the lyophilized HRP in sterile 18MΩ-cm H<sub>2</sub>O not less than 100 µg/ml or more than 10 mg/ml solutions. Greater than 250 U/mg (25°C, guaiacol as the hydrogen donor, pH-7 and H<sub>2</sub>O<sub>2</sub> as substrates). Purity: (A403/A278) = RZ: 3.5. Users must optimize the appropriate concentration and conditions for each assay.

**Storage and Stability:** Lyophilized HRP although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution HRP should be stored at 4°C between 2-7 days and for future use below -18°C. **Please prevent freeze-thaw cycles.** If supplied in powder then reconstitute it in 100 µl water for 1 mg/ml stock and store in liquid at 4°C for ~1 week or aliquots in suitable size and store at -20°C for long term storage.