

32-2452: HRP

Alternative Name : Horseradish Peroxidase,HRP,EC 1.11.1.7.

Description

Source : Root extracts of horseradish. HRP consists of the basic isoenzyme having a molecular weight of 44 kDa. It is a metalloenzyme with many isoforms, of which the most studied type is C. It catalyzes the oxidation of various organic substrates by hydrogen peroxide. The Horseradish Peroxidase is purified by affinity chromatography, which results in an enzyme of high specific activity and purity. 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 stains 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.

Product Info

Amount :	50 mg
Purification :	Greater than 268 U/mg (25°C, guaiacol as the hydrogen donor, pH-7 and H ₂ O ₂ as substrates).
Content :	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.
Storage condition :	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.

Application Note

It is recommended to reconstitute the lyophilized HRP in sterile 18MΩ-cm H₂O not less than 100 µg/ml or more than 10 mg/ml solutions. Greater than 268 U/mg (25°C, guaiacol as the hydrogen donor, pH-7 and H₂O₂ as substrates).