



Product Specification Sheet

Antibody/Protein-Peroxidase-Conjugate stabilizer solution

Cat. EW-HRPS-100

Antibody/Protein-Peroxidase-Conjugate stabilizer solution

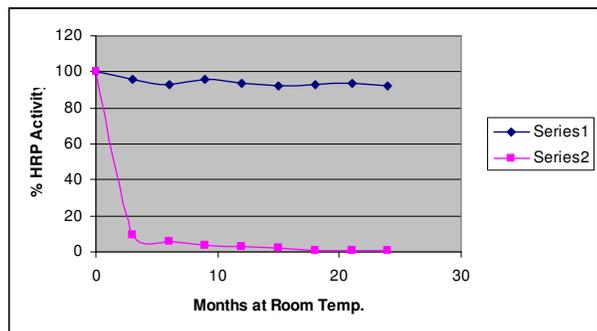
SIZE: 100 ml

Enzyme-Linked ImmunoAssay (ELISA or EIA) is a very common immunoassay designed to quantitate the antigens (proteins, haptens, drugs, hormone etc). The techniques require that an antibody be coupled or conjugated to a tracer enzyme such as HRP or Alkaline phosphatase. HRP has distinct advantage over the Alk. Phosphatase due to its high turnover, stability, and low cost. Therefore, HRP-antibody conjugates are most commonly employed in ELISA and other immunoassays such as Western or Immunohistochemistry. In general, the protein molecule or enzyme is most stable at low temperature and high protein concentrations. The trend of immunoassay-based *in vitro* diagnostic products is toward the format of ready-to-use liquid solution instead of concentrated liquid solution and air- or freeze-dried solid.

Antibodies or proteins are typically conjugated to horse raddish peroxidase (HRP) as a detecting antibody-enzyme conjugate. Antibody-HRP conjugates are prepared at relatively high protein concentration 1-5 mg/ml and kept in some carrier proteins to make them stable. However, most conjugates are not stable in common buffers containing BSA or other additives, particularly when used or kept at low concentrations that are typically used in immunoassays.

Antibody/Protein-Peroxidase-Conjugate stabilizer solution is a specialized formulation of buffer designed to stabilize the antibody-HRP conjugate as stock or in low concentrations.

The efficacy of HRP stabilizer was verified by real-time stability studies that included independent testing of the enzyme activity and the immunological activity by ELISA (see Fig. 1). The studies were conducted using a monoclonal IgG-HRP conjugate. Results of these analyses indicate superior performance of HRP stabilizer compared to a common HRP conjugate diluent. The monoclonal IgG-HRP conjugate retained over 90% of its activity when stored in HRP-stabilizer for 24 months at room temperature.



Series 1=antibody-hrp conjugate kept in HRP stabilizer for various times at room temp.

Series 2=antibody-hrp conjugate kept in common BSA containing buffers for various times at room temp.

Form and storage

GSI's protein stabilizer solution contains proprietary ingredients including bovine proteins in a buffer (pH 6.2-6.7) and preservatives (0.02% methylisothiazole and 0.02% bromonitrodioxane and 0.02% other isothiazolone. . It should be diluted 1:10 with water or PBS before use.

Store at 4oC: Stable for 1 year at 4oC.

Suggested applications

This product is specially formulated for stabilizing antibody-HRP conjugates. It can be used to keep either the stock HRP conjugates or diluted HRP conjugates that are ready-to-use format. Dilute the conjugate directly in stabilizer solution and keep the stock or diluted conjugate at 4oC.

*This product is for *in vitro* research use only.

Related material available from GSI:

Antibody coated plate stabilizers

Non-protein, non-bovine protein stabilizer

HRP conjugate stabilizer

Single solution, ready-to-use TMB for ELISA