

Product Information

ANTI-fd BACTERIOPHAGE BIOTIN CONJUGATE Antibody developed in Rabbit IgG Fraction of Antiserum

Product No. **B 2661**

Product Description

Anti-fd Bacteriophage is developed in rabbit using repeated injections of fd bacteriophage as the immunogen. Whole antiserum is fractionated and then further purified by ion-exchange chromatography to provide the IgG fraction of antiserum which is essentially free of other rabbit serum proteins. Anti-fd Bacteriophage is conjugated to biotin ϵ -amino caproic acid-N-hydroxy-succinimide ester by covalent attachment.

Reagents

The conjugate is provided as a solution in 0.01 M phosphate buffered saline, pH 7.4, with 15 mM sodium azide as a preservative.

Precautions and Disclaimer

Due to the sodium azide content a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazards and safe handling practices.

Specificity

Biotin Conjugated Rabbit Anti-fd Bacteriophage binds specifically to phage coat proteins of fd phage or M13 phage when tested by ELISA.

Uses

Biotin Conjugated Rabbit Anti-fd Bacteriophage may be used to rapidly sort large phage display libraries (antibody, peptide, etc) with expressed proteins fused to either the gene III or gene VIII protein of filamentous bacteriophage. The product may also be used as a reagent in "phage ELISA," offering sensitive and specific activity for detection of recombinant bacteriophage.

Immunoglobulin Content: at least 2.5 mg/ml

Titer: Minimum 1:500 (Direct ELISA)

Titer is defined as the dilution of conjugate that gives a change in absorbance of 1.0 at 450 nm after 30 minutes of substrate conversion at 25 °C (Voller, et al., and Guedson et al.).^{1,2} Microtiter plates are coated with fd or M13 bacteriophage at a concentration of 1×10^{10} bacteriophage/ml in 0.05 M carbonate/bicarbonate buffer pH 9.6 (Carbonate/Bicarbonate Buffer capsules are available as Product No. C3041). Following incubation with the biotinylated antibody a 2 μ g/ml solution of ExtrAvidin[®]-Peroxidase (Product No. E2886) is added.

Substrate: *o*-Phenylenediamine dihydrochloride (OPD, Sigma Product No. P8287), 0.4 mg/ml in 0.05 M phosphate-citrate buffer, pH 5.0 containing 0.03% sodium perborate (Phosphate-Citrate Buffer capsules with sodium perborate are available as Product No. P4922).

Working Dilutions

Working dilutions should be determined by titration assay. Due to differences in assay systems, these titers may not reflect the user's actual working dilution.

Storage

For continuous use, store at 2-8 °C for up to one month. For extended storage, solution may be frozen in working aliquots. Repeated freezing and thawing is **not** recommended. Storage in "frost-free" freezers is **not** recommended. If slight turbidity occurs upon prolonged storage, clarify by centrifugation before use.

References

1. Voller, A., et al., Bulletin WHO, **53**, 55 (1976).
2. Guedson, J., et al., J. Histochem. Cytochem., **27**, 1131 (1979).

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