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A Geno Technology, Inc. (USA) brand name

Well-Coated™ Biotin

96-Well Plate Coated With Biotin for Binding Avidin, Streptavidin or Neutravidin™ Conjugated Molecules

(Cat. # 786-746, 786-747, 786-762, 786-763)

INTRODUCTION

Well-Coated™ Biotin plates are designed to specifically bind avidin, streptavidin or Neutravidin™ conjugated molecules, including enzyme conjugates.

Biotin exhibits an extraordinary binding affinity for avidin ($K_a=10^{15}M^{-1}$) and streptavidin ($K_a=10^{15}\ M^{-1}$). Biotin and avidin interaction is rapid and once the bond is established it can survive up to 3M guanidine-hydrochloride and extremes of pH. Biotin-avidin bonds can only be reversed by denaturing the avidin protein molecule with 8M guanidine-hydrochloride at pH1.5 or by autoclaving. Streptavidin and Neutravidin™ in many respects are similar to avidin except that they have no carbohydrate and their solubility in aqueous buffer is much lower than avidin. Neutravidin™ also lacks the RYD sequence eliminating interaction with RGD domain of adhesion receptors. The binding of strepatavidin and Neutravidin™ is similar to that of avidin, but with less non-specific binding.

The wells are coated to a 200µl depth and are supplied pre-blocked in our proprietary Superior™ Blocking Buffer. The plates have the capacity to bind 30-50ng streptavidin per well. The clear, white and black plates are offered for colorimetric, chemiluminescence and fluorescent detection systems, respectively.

ITEM(S) SUPPLIED

Cat. #	Components	Size
786-747	Well-Coated™ Biotin Coated 8-well strip plate, Clear	5 plates
786-762	Well-Coated™ Biotin Coated 96 well plate, Black	5 plates
786-763	Well-Coated™ Biotin Coated 96 well plate, White	5 plates

STORAGE CONDITIONS

Shipped at ambient temperature. Upon arrival, store unopened at 4°C. Once opened the plates can be stored in a resealable bag (ZipLoc) with an appropriate desiccant at 4°C.

SPECIFICATION

- Bind 30-50ng streptavidin per well

PROTOCOL

The following protocol is a simple direct ELISA protocol and the protocol and reagents used will have to be optimized for specific applications and assays.

ADDITIONAL ITEM(S) REQUIRED

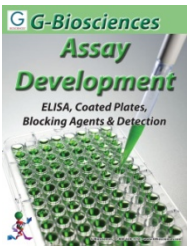
- Avidin, streptavidin or Neutravidin™ enzyme conjugated molecules (0.2-1µg/ml)
- Wash Buffer: femtoTBST™ (Cat. # 786-161) or femtoPBST™ (Cat. # 786-162); 10X concentrated wash buffers supplemented with Tween® 20. Or an appropriate wash buffer of choice.
- Blocking Buffer: A suitable blocking buffer, we recommend our Superior™ Blocking Buffer (Cat. # 786-655 to 786-661) or NAP-BLOCKER™, an animal free blocking agent suitable for ELISA (Cat. # 786-190).
- Detection system, femtoELISA™ is a chromogenic detection system for HRP and AP (Cat. # 786-110 to 786-113)

Direct ELISA Assay

1. Wash the wells to be used three times with 300µl Wash Buffer.
2. Add up to 200µl avidin, streptavidin or Neutravidin™ conjugated molecules to each well.
3. Incubate at room temperature for 1 hour, for optimal binding use a plate shaker.
4. Wash each well three times with 300µl Wash Buffer.
5. Detect the label signal according to the manufacturer's instructions, using 200µl detection reagent per well.

RELATED PRODUCTS

Download our Assay Development Handbook.



http://info.gbiosciences.com/complete-assay-development-handbook

For other related products, visit our website at www.GBiosciences.com or contact us.

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