GOAT ANTI MOUSE IgG Fcγ (Subclasses 1+2+2b+3) COATED SURFACES

The Biomat product is a 96 well coated microplate with goat anti mouse IgG Fcγ (subclasses 1+2a+2b+3) and a protein to block non-specific binding sites and to maintain stable activity.
Affinity purified goat anti mouse IgG specifically binds the Fc region of mouse immunoglobulin subclasses 1,2a,2b and 3 , with minimal cross-reaction to human, bovine and rabbit serum proteins.
These plates may be used as solid support for most sandwich ELISAs utilizing a mouse IgG capture and a non mouse IgG detection antibody. Other applications include competitive ELISA, IgG isotyping and hybridoma screening/selection.
These plates are ideal for binding assays when available antibodies are in low quantities or they denature and become inactive upon direct adsorption to polystyrene plates.

Features of goat anti mouse IgG antibody coated plates:

- ***prevent antibody denaturation as a result of direct adsorption to polystyrene***
- ***unlike Protein A or G plates, these plates bind only to target IgG species***
- ***these plates show a higher antibody-binding capacity than direct adsorption onto polystyrene when using diluted mouse IgG solutions***

Product specifications

Components

Individually pouched 96-well microplates, configured in 12 removable 8-well strips.

Coating

Affinity purified goat anti mouse IgG Fcγ (subclasses 1+2a+2b+3) is coated using 100 µl/well. The strips are post-coated (blocked) for low non specific binding and long-term stability.

Binding capacity

Microplate was saturated with mouse IgG at a concentration of 1.0 µg/ml (100 ng/well) in an ELISA format using goat anti mouse IgG (H+L)-HRP as detector and TMB as substrate (see Figure 1 for data and experiment details).

The Biomat Goat anti mouse IgG Fcγ microplate shows a nominal **binding capacity of ~ 0.625 pmol /well of mouse IgG**

Sensitivity

Mouse IgG was detected at a concentration significantly above background in an ELISA format using goat anti mouse IgG (H+L)-HRP as detector and TMB as substrate (see Figure 1 for data and experiment details).

The Biomat Goat anti mouse IgG Fcγ microplate shows a **sensitivity of ~ 0.01 µg/ml of mouse IgG**.

Uniformity

Microplates show a **CV% less than 5** when used as a sandwich of mouse IgG in an ELISA format using goat anti mouse IgG (H+L)-HRP as detector and TMB as substrate.

Storage and Stability

The microplates, under the indicated storage conditions 2-8 °C, are stable until the expiration date printed on the label. If opened, store in closed pouch with dessicant and use within the expiration date.

TECHNICAL NOTES N. 37 binding capacity and sensitivity test

1. Add 100 µl of different concentrations of mouse IgG (from 0.025 to 4 µg/ml) to the wells of goat anti mouse IgG coated plate and incubate for 60 minutes at room temperature
2. Empty the wells and wash with 0.1 M PBS pH 7.2,0.05% Tween® 20 four times
3. Add 100 µl /well of Goat anti-mouse IgG (H+ L)-HRP (Jackson ImmunoResearch code 115-035-003, diluted 1: 150.000) and incubate for 30 minutes at room temperature
4. Empty the wells and wash with 0.1 M PBS pH 7.2,0.05% Tween® 20 four times
5. Add 100 µl /well of TMB substrate solution and incubate 15 minutes at room temperature
6. Stop the substrate reaction by adding 100 µl /well of sulphuric acid 0.3 N and read the optical density values at 450 nm

The data show that a plateau has got starting with an IgG mouse concentration of 1.0µg/ml.

This concentration means the well binding capacity we can express as :

- µg/well = 0.1 (100 ng/well)
- pmol/well= 0.625 (this result is calculated considering the IgG M.W. = 160.000)

The microplate sensitivity was calculated as the lowest mouse IgG concentration higher than the mean optical density plus 5 S.D. of 0 µg/ml mouse IgG concentration.

Our experiment gave the following results :

- 0 µg/ml mouse IgG optical density mean (coming from 8 replicates) = 0.108
- standard deviation = 0.014
- mean + 5 S.D. = 0.178
- sensitivity = 0.012µg/well of mouse IgG

figure 1