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Direct ELISA for investigating the binding of Protein-A to immunoglobulins.

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1 Works for me dx.doi.org/10.17504/protocols.io.bjxqkpmw

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MATERIALS

NAME	CATALOG #	VENDOR
Nunc® 96-Well Polystyrene Round Bottom Microwell Plates, V 96 well plate, Non-Treated, clear, without lid, Sterile	260210	Thermo Fisher
Staphylococcal Protein-A		Sigma Aldrich

- 1 This ELISA is used to study the interaction of protein-A (SpA) with diverse immunoglobulins.
- 2 The 96 well microtitre plate is coated overnight at 4°C with 1 µg/µl per well of purified immunoglobulins or 50 µl of any animal sera in carbonate-bicarbonate buffer pH 9.6.
- 3 Then plate is treated with bovine serum albumin solution and washed 4X with PBS-Tween.

- 4 Then 50 µl of peroxidase-labeled-protein-A conjugate diluted 1:5000 in PBS-non-fat milk is added to each well and incubated for 1.30h at RT. After that the plate is washed 4X with PBS-Tween.
- 5 Pipette 50 µl of 3,3',5,5' - tetramethylbenzidine (TMB; Sigma-Aldrich) to each well.
- 6 The reaction is stopped with 50 µl of 3M H₂SO₄ solution.
- 7 The plate is visually assessed for the development of colour and read in a microplate reader at 450 nm.
- 8 A cut-off point should be calculated as the mean of the optical density of negative controls x 2 SD.