

Protein A Gold Conjugate (40nm, 10 OD) ab270695

Overview

Product name Protein A Gold Conjugate (40nm, 10 OD)

General notes Protein A Gold Conjugate (40nm, 10 OD) (ab270695) is manufactured using our Gold Nanoparticles which have a protective coating that can withstand the most extreme conditions (e.g. 2.5 M NaOH at 70°C for >1 hour). The irreversible covalent attachment does not allow the desorption of the Protein A, which is a major problem associated with gold conjugates when developed using passive adsorption techniques.

To exchange the conjugate into a specific buffer for your assay or test, centrifuge the conjugate in a microfuge at 9,000 x g for 6 minutes. Carefully remove the supernatant and add your preferred buffer. It is important to avoid substances that have a very high affinity for gold (e.g. thiols).

The maximum absorbance for Protein A Gold Conjugate (40nm, 10 OD) is at 530 nm. To determine the effective concentration of the conjugate obtained we advise to measure the Absmax of light using an UV-vis spectrophotometer after diluting your sample to an appropriate range for your piece of equipment (e.g. if a 40 nm gold conjugate is at 10 OD and is diluted 1:10 the Abs_{530nm} for a 1 cm light path is expected to be around 1 AU).

Before using Protein A Gold Conjugate (40nm, 10 OD) to detect a specific antibody we recommend that you check the affinity of Protein A for that antibody and subtype (see table below). Rabbit and human IgGs, for example, are good candidates because they bind to Protein A with high affinity.

Species	IgG	Binding Strength
Rabbit	IgG	High
Human	IgG	High
Pig	IgG	High
Mouse	IgG ₁	Low/Medium
Mouse	IgG _{2a}	High
Mouse	IgG _{2b}	High
Mouse	IgG ₃	Low/Medium
Goat	IgG	Low
Sheep	IgG	Low
Rat	IgG	Low

Protein A Gold Conjugate (40nm, 10 OD) is tested as a detector tool in Lateral Flow Assay but can also be used in electron and light microscopy, immunoblotting, and dot-blot. As Protein A (40nm Gold) affinity for antibodies can vary, a titration of the specific antibody used is

recommended in order to obtain the optimal performance. We recommend performing the incubation of Protein A Gold Conjugate (40nm, 10 OD) with the antibody in a buffer that has a pH close to 8, for at least 10-15 minutes. After this stage do not centrifuge the gold complex.

This product is manufactured by Expedeon, an Abcam company. It was previously called 40nm InnovaCoat® GOLD (10 OD) Protein A Conjugate. Expedeon product code 222-0200 is the same as the 200 µl size of this product and code 222-1000 is the same as the 1 mL size.

Properties

Form	Liquid
Storage instructions	Shipped at Room Temperature. Store at +4°C.
Storage buffer	pH: 7 Constituents: Tris buffered saline, 0.1% Tween

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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