

Gold Nanoparticles, Transferrin

Description

Transferrin is an iron-binding glycoprotein found in the blood plasma of vertebrates. It is a key component in iron transport and metabolism throughout an organism. Abvigen Transferrin conjugated gold nanoparticles utilize holo-transferrin, which is the iron-saturated form, meaning that they can be readily taken up by cells through endocytosis. Suitable for use in application such as cellular uptake studies. This allows for easier visualization of cellular uptake of iron using dark field microscopy, and electron microscopy.

Product List

Cat No	Product Name	Concentration	Size
ABGN-5-T	Gold Nanoparticles, 5 nm, Transferrin	OD 3	0.5 mL
ABGN-10-T	Gold Nanoparticles, 10 nm, Transferrin	OD 3	0.5 mL
ABGN-15-T	Gold Nanoparticles, 15 nm, Transferrin	OD 3	0.5 mL
ABGN-20-T	Gold Nanoparticles, 20 nm, Transferrin	OD 3	0.5 mL
ABGN-30-T	Gold Nanoparticles, 30 nm, Transferrin	OD 3	0.5 mL
ABGN-40-T	Gold Nanoparticles, 40 nm, Transferrin	OD 3	0.5 mL
ABGN-50-T	Gold Nanoparticles, 50 nm, Transferrin	OD 3	0.5 mL
ABGN-60-T	Gold Nanoparticles, 60 nm, Transferrin	OD 3	0.5 mL
ABGN-80-T	Gold Nanoparticles, 80 nm, Transferrin	OD 3	0.5 mL
ABGN-100-T	Gold Nanoparticles, 100 nm, Transferrin	OD 3	0.5 mL

Characteristics

Core size range: 5 nm ~ 100 nm Concentration: OD=3 Conjugated protein: Holo-Transferrin (Purified from Human Serum) Working dilution: 1:10 ~ 1:100 (application dependent, optimization might be required) Storage buffer: 10 mM PBS (pH 7.4), 20% glycerol (v/v), 1% BSA



Features

Readily taken up by cells through endocytosis Provides a permanent label

Applications

Transferrin gold conjugates are suitable for use in cell uptake studies and can be detected using light microscopy (requires silver enhancement), darkfield microscopy, and electron microscopy.

Standard Immunogold Dot-Blot Protocol

(Adapted from Moeremans et al.)

- 1. Spot one microlitre drops of a serial dilution of your protein (1 ug ~ 1 ng) in PBS supplemented with
- 0.5 μg/mL of BSA on nitrocellulose or PVDF membrane.
- 2. Let protein drops dry into the membrane.
- 3. Block Membrane for 30 min using 1% (w/v) dry milk in 1X PBS at room temperature.
- 4. Incubate with primary antibody for 2 h at room temperature.
- 5. Wash membrane 3x5 min with blocking solution prepared as above.
- 6. Incubate for 2 h (or longer for increased sensitivity) with secondary gold conjugate diluted 1:10

(OD=0.3) times with blocking solution (0.2% Blocking Solution).

- 7. Wash 3x5 min as above.
- 8. Dry membrane and record data.
- 9. (OPTIONAL) Proceed with silver enhancement to improve sensitivity.

Storage and Stability

Store undiluted in storage buffer at 2-8°C. Stable for 4 months if stored as specified.

Storage of conjugate at working dilution may result in performance loss.

DO NOT FREEZE.

Notes

This product is for R&D use only, not for drug, household, or other uses.



Ordering Information

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