



Applied Biological Materials Inc

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Proteinfectin™

Store at 4°C

Cat. No.	Description	Quantity
G288	Proteinfectin™	250 µl

Description

ABM's Proteinfectin™ comprises of lipid formulations which will mediate the transport of intact functional proteins across the cell membrane via non-covalent complexes. ABM's Proteinfectin™ can co-deliver multiple proteins ranging from small peptides to large proteins greater than 550kDa. High delivery efficiency have been observed when delivering diverse proteins (ie. active enzymes and antibodies) with the help of Proteinfectin™ into a variety of cell types including primary cells.

Transfection Protocol

Use the following conditions as guidelines to transfect mammalian cells in a 6-well or 35mm dish format. For other culture vessels, please refer to Table 1.

- a) **Adherent Cells:** 18 to 24 hours prior to transfection, seed cells at a density of 1 to 3 x 10⁵ cells per well in 2.0ml of appropriate growth medium (with serum and antibiotics if cells are cultured in the presence of them). Incubate the cells at 37°C in a CO₂ incubator until cells are 70% to 90% confluent at the time of transfection.

b) **Suspension Cells:** Just prior to preparing complexes, plate 3 to 5 x 10⁵ cells in 0.8ml of serum free medium without antibiotics.

Since transfection efficiency is sensitive to culture confluency, it is important to maintain a standard seeding protocol from experiment to experiment.
2. For each transfection sample, prepare the complexes as follows:
Dilute 5µg of targeting protein into 100µl of **serum-free, antibiotic-free** medium. Vortex Proteinfectin™ reagent thoroughly prior to use, add 5µl into the mixture. Mix well.
3. Incubate the mixture for 20 minutes at room temperature. Dilute the Proteinfectin™-protein solution with serum-free medium without antibiotic to 1mL.
4. a) **Adherent Cells:** Remove growth medium from the cells and add 1mL serum-free medium without antibiotic into each well before adding the Proteinfectin™-protein solution.

4. b) **Suspension Cells:** Add 0.2ml of the Proteinfectin™-protein solution into each well containing suspension cells in 0.8ml serum-free, antibiotic-free medium.
5. Incubate the cells at 37°C in a CO₂ incubator for the recommended incubation period outlined in Table 2. After incubation time, remove the Proteinfectin™-protein solution and add 1.0ml of the appropriate complete growth medium (with serum and antibiotics) into each well.
6. Replace the complete growth media on the following day and continue incubation until assaying. Wash cells with serum-free medium before assaying to remove any untransfected proteins.

Storage Conditions

Store at 4°C upon arrival of the product. Do not freeze.

Optimizing Transfection for Specific Proteins

To achieve the maximum transfection efficiency and low cytotoxicity, optimize conditions by varying cell density along with protein and Proteinfectin™ concentrations.

Table 1: Reagent Quantities for Different Culture Vessels

Culture Vessel	Target Protein (µg)	Proteinfectin™	Serum-free, Antibiotics Free Medium for Initial Dilution	Final incubation volume
24-well	2µg	3µl	50µl	500µl
12-well	2µg	3µl	50µl	1ml
6-well	5µg	5µl	100µl	2ml
35mm	5µg	5µl	100µl	2ml
60mm	10µg	10µl	500µl	5ml
10cm	30µg	20µl	1ml	10ml

Table 2: Incubation Times for Different Proteins of Interest

Protein of Interest	Recommended incubation period
Enzymes	2 hours
Antibodies	5 hours- 24 hours
Histones	3 hours- 12 hours
Low molecular weight proteins	2 hours- 3 hours
Peptides	3 hours

*For laboratory research only. Not for clinical applications.
For technical questions, phone the ABM helpline at 1-866-757-2414
or visit our website at www.abmGood.com*

CERTIFICATE OF ANALYSIS