

NIMT[®] FeOlabel

Product Description

Product no F0-FL1-010, F0-FL1-050
Iron oxide nanoparticles for intracellular labeling of cells.

Contents and Storage

- ✓ NIMT[®]FeOlabel, 500 µg Fe/ ml

NIMT[®]FeOlabel is shipped on ice. It should be stored at 2-8 °C upon arrival.
NIMT[®]FeOlabel is for R&D use only.

Quality Control

NIMT[®]FeOlabel Texas Red is tested to ensure lot-to-lot consistency. Functionality test of NIMT[®]FeOlabel Texas Red is done by examination of particle uptake using fluorescence microscopy.

NIMT[®]FeOlabel Texas Red is tested for absence of microbial contamination with blood agar plates, Sabouraud dextrose agar plates and fluid thioglycolate medium.

Introduction

NIMT[®]FeOlabel is designed for efficient uptake into mammalian cells. NIMT[®]FeOlabel is an imaging agent based on lipid coated nanoparticles with an iron oxide core formulated to yield high cellular uptake while minimizing cell cytotoxicity.

General Guidelines

Cell Culture

For commercially available cell lines we recommend following the suppliers guidelines regarding culture medium and supplement as well as subculturing and seeding conditions.

Cell conditions before labeling with NIMT[®]FeOlabel:

- ✓ Cells should be subcultured 2-3 days before transfection to ensure normal cell metabolism.
- ✓ Antibiotics can be included in the medium used during labeling and the subsequent incubation.
- ✓ Serum can be included in the medium used during labeling and the subsequent incubation.

Cell labeling using NIMT[®]FeOlabel

It is strongly recommended to test different amounts of NIMT[®]FeOlabel Texas Red per cell measured as pg iron/cell. Usually 10-100 pg iron/cell yields sufficient iron oxide labeling. However this should be optimized for the particular cell line used. Outlined below is a general protocol for labeling of cells in vitro:

1. Calculate the amount of pg iron/cell. Multiply this amount with number of cells to be labeled.
2. Dilute NIMT[®]FeOlabel particles 5-10 times in sterile double distilled water before addition to cell culture. The dilution is preformed to avoid large flocculation of particles.
3. Add NIMT[®]FeOlabel particles suspended in water to the cell culture.
4. Incubate 1 hour to overnight.
5. Analyze labeled cells.