abcam

Product datasheet

LDL Uptake Assay Kit (Cell-Based) ab133127

13 References 2 Images

Overview

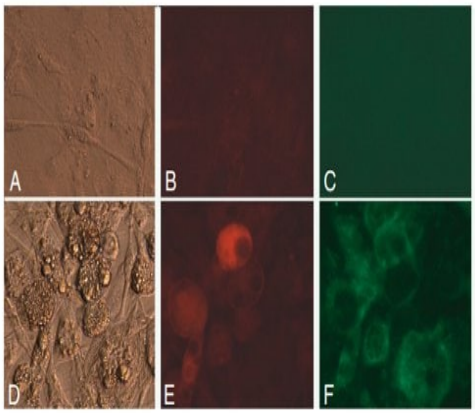
Product name	LDL Uptake Assay Kit (Cell-Based)
Detection method	Fluorescent
Sample type	Adherent cells
Assay type	Cell-based
Assay time	6h 30m
Species reactivity	**Reacts with:** Mammals, Other species
Product overview	LDL Uptake Assay Kit (Cell-Based) (ab133127) provides a convenient tool for studying LDL uptake and regulation at the cellular level. This kit employs Human LDL conjugated to DyLight™ 550 as a fluorescent probe for detection of LDL uptake into cultured cells. An LDL receptor-specific polyclonal antibody and a DyLight™ 488-conjugated secondary antibody are included for identifying the distribution of LDL receptors. LDL uptake assay protocol summary: - remove culture medium from experimentally treated cells - add LDL-Dylight 550 solution and incubate for 3-4 hrs - replace solution with culture medium - analyze LDL uptake with fluorescent microscope - wash cells and fix for 10 min - wash 3 times for 5 min - add assay blocking solution and incubate for 30 min - add anti-LDL receptor antibody and incubate for 1 hr - wash 3 times for 5 min - add Dylight 488 secondary antibody and incubate for 1 hr - wash 3 times for 5 min - analyze staining with fluorescence microscope
Notes	LDL is the major carrier of cholesterol in the blood, accounting for more than 60% of total plasma cholesterol. LDL is taken up by hepatic and extra-hepatic tissues through receptor mediated endocytosis triggered by apoB-100-LDL receptor interaction. The internalized LDL particle is transported to lysosomes where it is degraded to free cholesterol and amino acids.
Platform	Fluorescence microscope

Properties

Storage instructions Please refer to protocols.

Components	1 kit
Cell-Based Assay Blocking Solution	1 vial
Cell-Based Assay Fixative	1 vial
DyLight 488-Conjugated Goat Anti-Rabbit Secondary Antibody	1 unit
LDL-DyLight 550	1 vial
Rabbit Anti-LDL Receptor Primary Antibody	1 vial

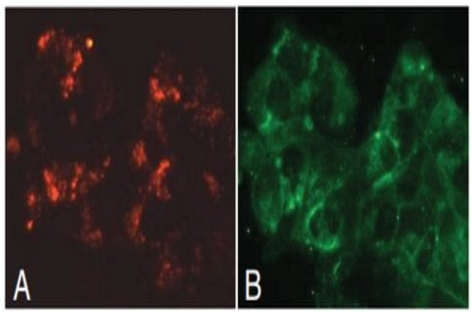
Images



Functional Studies - LDL Uptake Assay Kit (Cell-Based) (ab133127)

LDL uptake in pre-adipocytes and adipocytes.

Panel A: Light image of undifferentiated pre-adipocytes.
Panel B: Undifferentiated pre-adipocytes do not show any LDL uptake.
Panel C: Undifferentiated pre-adipocytes show little LDL receptor expression.
Panel D: Light image of differentiated adipocytes.
Panel E: Corresponding cells to those in Panel D showing uptake of LDL (red).
Panel F: Corresponding cells to those in Panel D showing expression of LDL receptor (green).



LDL Uptake Assay Kit (Cell-Based) (ab133127)

LDL uptake in HepG2 cells.
HepG2 cells were cultured at a density of 3 x 10^4 cells/well in a 96 well plate for two days then treated with 32.5µM EGCG overnight. LDL-Dylight™ 549 (10&microg/ml) was added and the cells were incubated for an additional four hours. Cells were fixed and stained for LDL receptor using a Rabbit anti-LDL receptor primary antibody and Dylight™ 488-conjugated secondary antibody.
Panel A: LDL-Dylight™ 549 taken into cells appears in red.
Panel B: LDL receptors (in green) show a distribution pattern that matches the cells in the Panel A containing LDL-Dylight™ 549.

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