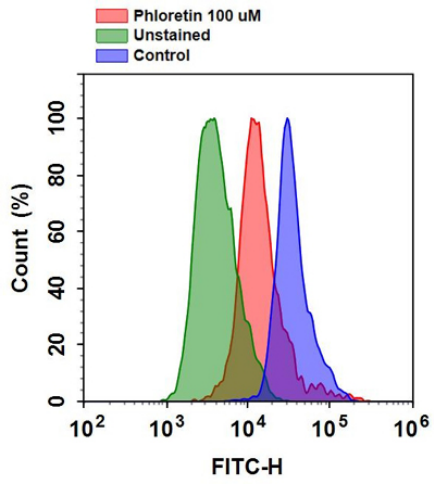
2-NBDG Glucose Uptake Assay Kit

Catalog # KA6077 Size 1 Kit

Applications



Flow Cytometry

Flow cytometry of 2-NBDG uptake in CHO-K1 cells using the 2-NBDG Glucose Uptake Assay Kit. CHO-K1 cells were treated with or without 100 uM Phloretin at 37°C for 1 hour, then incubated with 100 uM 2-NBDG staining solution for 20 minutes. To prepare adherent CHO-K1 cells for flow cytometry, EDTA was used to detach cells after staining. Fluorescence intensity was measured using ACEA NovoCyte flow cytometer in FITC channel.

Example Data Analysis and Figures.

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Fluorescence images of 2-NBDG uptake in CHO-K1 cells using the 2-NBDG Glucose Uptake Assay Kit. CHO-K1 cells at 40,000 cells/well/100 uL were seeded overnight in a 96-well black wall/clear bottom plate. Cells were treated with 20 mM Glucose (B) or 100 uM Phloretin (C) at 37°C for 1 hour, then incubated with 100 uM 2-NBDG staining solution for 20 minutes. Untreated control cells were stained under the same conditions. The fluorescence signal was measured using a fluorescence microscope with FITC filter.

Specification

Product Description	2-NBDG Glucose Uptake Assay Kit provides a sensitive and non-radioactive assay for measuring glucose uptake in cultured cells. The fluorescence signal can be monitored by fluorescence microscope or flow cytometer with a 488 nm laser and 530/30 nm emission filter (FITC channel). This Assay Kit is the most robust tool for monitoring glucose transporters.

Suitable Sample	Cultured Cells.
Detection Method	Fluorimetric
Platform	Instrument: Flow cytometer Excitation: 488 nm laser Emission: 530/30 nm filter Instrument specification(s): FITC channel Instrument: Fluorescence microscope Excitation: FITC filter Emission: FITC filter Recommended plate: Black wall/clear bottom
Regulatory Status	For research use only (RUO)
Storage Instruction	Store the kit at -20°C and avoid from light.
Note	Example Data Analysis and Figures. Example Data Analysis and Figures. Fluorescence images of 2-NBDG uptake in CHO-K1 cells using the 2-NBDG Glucose Uptake Assay Kit. CHO-K1 cells at 40,000 cells/well/100 uL were seeded overnight in a 96-well black wall/clear bott om plate. Cells were treated with 20 mM Glucose (B) or 100 uM Phloretin (C) at 37°C for 1 hour, then incubated with 100 uM 2-NBDG staining solution for 20 minutes. Untreated control cells were stained under the same conditions. The fluorescence signal was measured using a fluorescence microscope with FITC filter.

Applications

- Functional Study
- Flow Cytometry

  Flow cytometry of 2-NBDG uptake in CHO-K1 cells using the 2-NBDG Glucose Uptake Assay Kit. CHO-K1 cells were treated with or without 100 uM Phloretin at 37°C for 1 hour, then incubated with 100 uM 2-NBDG staining solution for 20 minutes. To prepare adherent CHO-K1 cells for flow cytometry, EDTA was used to detach cells after staining. Fluorescence intensity was measured using ACEA NovoCyte flow cytometer in FITC channel.

Publication Reference

- Respiratory syncytial virus co-opts hypoxia-inducible factor-1α-mediated glycolysis to favor the production of infectious virus.

  Li-Feng Chen, Jun-Xing Cai, Jing-Jing Zhang, Yu-Jun Tang, Jia-Yi Chen, Si Xiong, Yao-Lan Li, Hong Zhang, Zhong Liu, Man-Mei Li.

  mBio 2023 Oct; 14(5):e0211023.

  Application: Func, Human, Hep-2 cells

- SNHG15 promotes chemoresistance and glycolysis in colorectal cancer.

  Min Li, Shengbai Sun, Zehua Bian, Surui Yao, Meng Liu, Xiaohong You, Min Li.

  Pathology, Research and Practice 2023 Jun; 246:154480.

  Application: Func, Human, DLD1, HTC8 cells