Glycoproteomic probes for fluorescent imaging of fucosylated glycans in vivo

本院覽號

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美國臨時案已申請、美國7,910,319已獲證、美國8,329,413已獲證

摘要

The invention provides a method of labeling of cellular glycans bearing azide group via a fluorescent labeling technique. The method entails generating fluorescent probe form a nonfluorescent precursor, 4-ethynyl-N-ethyl-1,8-naphthalimide, by Cu(I)-catalyzed [3+2] cycloaddition (click activation) of alkyne group of the probe with an azido-containing fucose analog into glycoprotein via the fucose salvage pathway. Cells treated with 6-azidofucose are labeled with the click activated fluorogenic probe or biotinylated alkyne.

技術優勢

Powerful technique for visualizing the intracellular localization of fucosylated glycoconjuates by fluorescent microscopy

應用範圍

Glycoprotein imaging Glycoprotein purification Identification of key biomarkers Cancer Research Diagnosis of Disease

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