



GLIOSTEM™ 515

Product description

Certain polymers, i.e. poly- and oligothiophenes, have been shown to be able to cross cell membranes without additional reagents and to illuminate when interacting with certain structures. GlioStem™ 515 specifically detects embryonic neural stem cells and stem cell-like cells derived from glioblastoma multiforme tumors. Within a maximum of 10 minutes after administration of the molecule *in vitro*, in the existing media, fluorescence emission is observed without any modulation of the cells or additional vehicle. Detection is efficiently assayed by fluorescent microscopy or fluorescence-assisted cell sorting (FACS). GlioStem™ 515 has been tested in a large number of different cell types, and the specificity of GlioStem™ 515 to detect embryonic neural stem cells and glioblastoma multiforme-derived stem cell-like cells *in vitro* has been verified in cell lines and primary cells from rodents as well as humans. No secondary detection method (e.g., secondary antibodies or enzymatic reaction) or invasive technique is required.

Reagent

Supplied diluted in water at a 1.5 mM solution.

Precautions and Disclaimer

GlioStem™ 515 is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices. Not for resale.

Storage/Stability

GlioStem™ 515 should be stored at 2-8°C for up to three months or room temperature for up to 14 days. Avoid prolonged exposure from light.

Reactivity

GlioStem™ 515 exposure results in a cytoplasmic luminescent signal clearly detectable at Alexa488/GFP wavelengths in the specific cell types. The signal co-localize to over 60% with the Golgi marker GM130. GlioStem™ 515 has been tested to positively identify embryonic cortical stem cells from rat (FGF2-expanded), embryonic stem cell-derived neural stem cells from mouse (FGF2/EGF-expanded), FGF2-exposed C6 glioma cell cultures from rat, as well as progenitor-enriched cultures from human glioblastoma multiforme tumors. In progenitor-enriched cultures from human glioblastoma multiforme, GlioStem™ 515 overlaps to >90% with CD271 (NGFR) staining in FACS experiments. No other cell type has been found to reliably stain positively for GlioStem™ 515 *in vitro*.

Applications

Each lot of this LCO is quality control tested by immunofluorescent staining with FACS.

Immunocytochemistry: a working dilution of 1:500 is recommended.

FACS: a working dilution of 1:500 is recommended.

In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration.