

## VdU (5-Vinyl-2'-deoxyuridine)

http://www.lumiprobe.com/p/vdu-vinyl-deoxyuridine

VdU (5-Vinyl-2'-deoxyuridine) is a synthetic analog of thymidine that can be used to study *de novo* DNA synthesis and cell proliferation. It is a potential replacement for <u>BrdU (5-Bromo-2'-deoxyuridine)</u> or <u>EdU (5-Ethynyl-2'-deoxyuridine)</u>.

VdU incorporates into replicating DNA during the S-phase of the cell cycle instead of natural thymidine. The resulting vinylfunctionalized DNA can be detected by introducing either a biotin or fluorescent dye group via a cooper-free alkene-<u>tetrazine</u> reaction (also known as Inverse electron demand Diels-Alder ligation or IEDDA) and used for subsequent DNA purification or cell imaging tasks.



Structure of VdU (5-Vinyl-2'-deoxyuridine)

## **General properties**

yellowish solid
254.24
55520-67-7
$C_{11}H_{14}N_2O_5$
in DMSO
NMR <sup>1</sup> H and HPLC-MS (95+%)
24 months after receival at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Desiccate.