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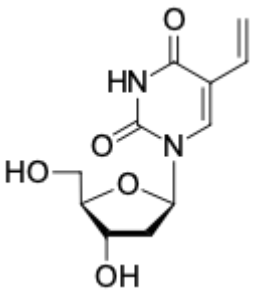
VdU (5-Vinyl-2'-deoxyuridine)

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 BrdU (5-Bromo-2'-deoxyuridine) or EdU (5-Ethynyl-2'-deoxyuridine).

VdU incorporates into replicating DNA during the S-phase of the cell cycle instead of natural thymidine. The resulting vinyl-functionalized DNA can be detected by introducing either a biotin or fluorescent dye group via a cooper-free alkene-tetrazine 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

Appearance:	yellowish solid
Molecular weight:	254.24
CAS number:	55520-67-7
Molecular formula:	$C_{11}H_{14}N_2O_5$
Solubility:	in DMSO
Quality control:	NMR ^1H and HPLC-MS (95+%)
Storage conditions:	24 months after receival at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Desiccate.