

## Product Datasheet

# 5-Dibenzylcyclooctyne-2'-deoxyuridine (5-DBCO-dU) (orb532331)

<b>Catalog Number</b>	orb532331
<b>Category</b>	Small Molecules
<b>Description</b>	5-DBCO-dU (5-Dibenzylcyclooctyne-2'-deoxyuridine) can potentially be used as a replacement for BrdU (5-Bromo-2'-deoxyuridine) or the copper-catalyst requiring 5-EdU (5-Ethynyl-2'-deoxyuridine) to measure de novo DNA synthesis in proliferating cells. 5-DBCO-dU is cell permeable and may incorporate into replicating DNA instead of its natural analog thymidine. The resulting DBCO-functionalized DNA can subsequently be detected via Cu(I)-free Click Chemistry that offers the choice to: introduce a Biotin group for subsequent purification tasks (via Azides of Biotin); introduce a fluorescent group for subsequent microscopic imaging (via Azides of fluorescent dyes).
<b>Form/Appearance</b>	solid; Color: colorless to slightly yellow
<b>Purity</b>	95% (HPLC)
<b>MW</b>	Theoretical MW: 568.58 g/mol (free acid); Detected MW: 568.20 g/mol (free acid)
<b>Application notes</b>	DNA synthesis monitoring (potentially). <b>Spectroscopic Propertie</b> : max 289 nm, 12.5 L mmol <sup>-1</sup> cm <sup>-1</sup> (Tris-HCl, pH 7.5).
<b>Formula</b>	C <sub>31</sub> H <sub>28</sub> N <sub>4</sub> O <sub>7</sub>
<b>SMILES</b>	<chem>c1(=O)[nH]c(=O)n(cc1C#CCNC(=O)CCC(=O)N1Cc2c(C#Cc3c1cccc3)cccc2)[C@H]1C[C@H](O)[C@H](O1)CO</chem>
<b>Storage</b>	store at -20 C
<b>Note</b>	For research use only

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