

Product Datasheet

5-Vinyl-uridine (5-VU) (orb1734970)

Catalog Number	orb1734970
Category	Small Molecules
Description	5-VU (5-Vinyl-uridine) can potentially be used as a replacement for BrU (5-Bromo-uridine) or the copper-catalyst requiring 5-EU (5-Ethynyl-uridine) to measure de novo RNA synthesis in proliferating cells. 5-VU is cell permeable and might incorporate into nascent RNA instead of its natural analog uridine. This assumption is based on the previously demonstrated suitability of 5-VdU (5-Vinyl-2'-deoxyuridine) for DNA synthesis monitoring. The resulting vinyl-functionalized RNA could subsequently be detected via Cu(I)-free Alkene-Tetrazine Ligation that offers the choice to introduce a Biotin group (via Tetrazines of Biotin) for subsequent purification tasks or a fluorescent group (via Tetrazines of fluorescent dyes) for subsequent microscopic imaging.
Form/Appearance	solid; Color: white to off-white
Purity	98% (HPLC)
MW	Theoretical MW: 270.24 g/mol; Detected MW: 270.09 g/mol
Application notes	RNA synthesis monitoring (potentially). Spectroscopic Propertie : max 288 nm, 8.5 L mmol ⁻¹ cm ⁻¹ , (Methanol).
Solubility (25°C)	DMSO, methanol
CAS Number	55520-64-4
Formula	C ₁₁ H ₁₄ N ₂ O ₆
SMILES	<chem>n1(cc(c(=O)[nH]c1=O)C=C)[C@H]1[C@@H]([C@@H]([C@H](O1)CO)O)O</chem>
Storage	store at -20 °C. Short term exposure (up to 1 week cumulative) to ambient temperature possible

Biorbyt Ltd.

7 Signet Court, Swann Road
Cambridge
CB5 8LA
United Kingdom

Email: info@biorbyt.com, support@biorbyt.com
Phone: +44 (0)1223 859353 | Fax: +1 (415) 651-8558

Biorbyt LLC

68 TW Alexander Drive
Research Triangle Park
Durham
NC 27713-2847
United States

Email: info@biorbyt.com, support@biorbyt.com
Phone: +1 (415) 906-5211 | Fax: +1 (415) 651-8558

Note	For research use only
Expiration Date	12 months from date of receipt.

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7 Signet Court, Swann Road
Cambridge
CB5 8LA
United Kingdom
Email: info@biorbyt.com, support@biorbyt.com
Phone: [+44 \(0\)1223 859353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

Biorbyt LLC

68 TW Alexander Drive
Research Triangle Park
Durham
NC 27713-2847
United States
Email: info@biorbyt.com, support@biorbyt.com
Phone: [+1 \(415\) 906-5211](tel:+1(415)906-5211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)