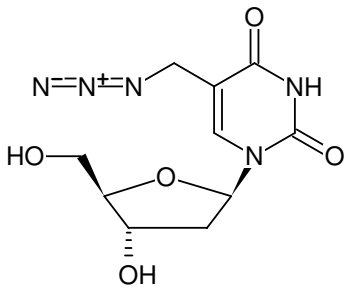
DATA SHEET

Jena Bioscience

5-Azidomethyl-2'-deoxyuridine (5-AmdU)

Cat. No.	Amount
CLK-064	10 mg



Structural formula of 5-Azidomethyl-2'-deoxyuridine (5-AmdU)

For general laboratory use.

Shipping: shipped at ambient temperature

Storage Conditions: store at -20 °C

Short term exposure (up to 1 week cumulative) to ambient temperature possible.

Shelf Life: 12 months after date of delivery

Molecular Formula: $C_{10}H_{13}N_5O_5$

Molecular Weight: 283.24 g/mol

Exact Mass: 283.09 g/mol

Purity: ≥ 90 % (HPLC)

Form: solid

Color: white to off-white

Solubility: DMSO, methanol

Spectroscopic Properties: λ_{max} 263 nm, ε 9.7 L mmol^{-1} cm^{-1}

Applications:
DNA synthesis monitoring[1]

Description:
5-AmdU (5-Azidomethyl-2'-deoxyuridine) can 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 during the S-phase of the cell cycle.
5-AmdU is cell permeable and incorporates into peplicating DNA instead of its natural analog thymidine.
The resulting azide-functionalized DNA can subsequently be detected via Cu(I)-catalyzed (CuAAC) or Cu(I)-free Click Chemistry that offers the choice to

- introduce a Biotin group for subsequent purification tasks (via Alkynes of Biotin or DBCO-functionalized Biotin, respectivly)
- introduce a fluorescent group for subsequent microscopic imaging (via Alkynes of fluorescent dyes or DBCO-functionalized fluorescent dyes, respectivly).

Related Products:
5-Ethynyl-2'-deoxy-uridine (5-EdU), #CLK-N001
5-Vinyl-2'-deoxyuridine (5-VdU), #CLK-050

Selected References:
[1] Neef *et al.* (2014) An azide-modified nucleoside for metabolic labeling of DNA. *Chembiochem.* **15 (6)**:789.