

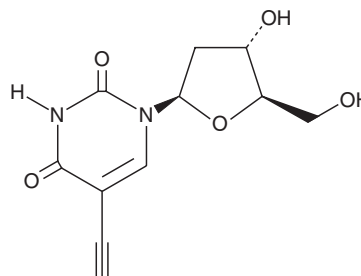
PRODUCT INFORMATION



5-Ethynyl-2'-deoxyuridine

Item No. 20518

CAS Registry No.: 61135-33-9
Formal Name: 2'-deoxy-5-ethynyl-uridine
Synonyms: Click Tag™ 5-Ethynyl-2'-deoxyuridine, 5-EdU, EdU, 2'-deoxy-5-Ethynyluridine
MF: C₁₁H₁₂N₂O₅
FW: 252.2
Purity: ≥98%
UV/Vis.: λ_{max}: 226, 287 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

5-Ethynyl-2'-deoxyuridine (EdU) is supplied as a crystalline solid. A stock solution may be made by dissolving the EdU in the solvent of choice, which should be purged with an inert gas. EdU is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of EdU in these solvents is approximately 20 mg/ml.

Description

EdU is a nucleoside analog of thymidine that is used to monitor *de novo* DNA synthesis through click chemistry.^{1,2} Like 5-bromo-2'-deoxyuridine (BrdU; Item No. 15580), EdU is incorporated into DNA during active DNA synthesis. It can then be detected using a fluorescent azide probe and copper catalysis using 1,3-dipolar cycloaddition.² Modified nucleosides, including EdU, can be cytotoxic when added to cells for prolonged periods.³

References

1. Buck, S.B., Bradford, J., Gee, K.R., *et al.* Detection of S-phase cell cycle progression using 5-ethynyl-2'-deoxyuridine incorporation with click chemistry, an alternative to using 5-bromo-2'-deoxyuridine antibodies. *Biotechniques* **44**, 924-929 (2008).
2. Cavanagh, B.L., Walker, T., Norazit, A., *et al.* Thymidine analogues for tracking DNA synthesis. *Molecules* **16**, 7980-7993 (2011).
3. Meneni, S., Ott, I., Sergeant, C.D., *et al.* 5-Alkynyl-2'-deoxyuridines: Chromatography-free synthesis and cytotoxicity evaluation against human breast cancer cells. *Bioorg. Med. Chem.* **15(8)**, 3082-3088 (2007).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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