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# Product Information

## EU (5-Ethynyl Uridine)

| Catalog No. | Unit Size |
|---|---|
| A013 | 50 mg |

**Storage upon receipt:**
- -20°C
- Protect from light

### Product Description

5-Ethynyl uridine (EU) is a novel alternative for bromo uridine (BrU or BrUTP) to directly image spatially and temporally nascent global RNA transcription both *in vitro* and *in vivo*. EU is a nucleoside analog of uracil, and is incorporated into RNA during active RNA synthesis.
Detection of the incorporated EU is based on a powerful click chemical reaction that utilizes bio-orthogonal or biologically unique moieties, specifically azides and alkynes. EU contains an alkyne that can react with an azide-containing detection reagent to form a stable triazole ring. Because click chemistry-based label and detection tags react selectively and specifically with one another, you can apply click-labeled molecules to complex biological samples and subsequently detect with unprecedented sensitivity due to an extremely low background.
It has been demonstrated that EU can be efficiently incorporated into RNA by several polymerases, but it does not incorporate into DNA.

### Chemical structures

**EU** (**5-ethynyl uridine)**

Molecular formula: $C_{11}H_{12}N_2O_6$

Molecular weight: 268.23

CAS number: 69075-42-9