

5-Fluorouracil, Inhibitor of thymidylate synthase

Catalog	Unit
TBI1276-250MG	250 mg
TBI1276-1G	1 g

Product Details

Formal Name: 5-Fluoro-1H,3H-pyrimidine-2,4-dione

Alternate Names: 5-FU

Molecular Formula: C₄H₃FN₂O₂

Formula Weight: 130.08

CAS Number: 51-21-8

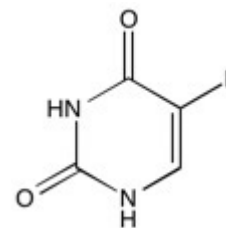
Purity: >98%

Formulation: powder

Solubility: Soluble in DMSO (up to 25 mg/ml).

Storage: -20°C

Stability: ≥ 1 year.



Applications

Inhibitor of thymidylate synthase

Functions

5-Fluorouracil (5-FU) is a clinically useful anticancer agent that acts via irreversible inhibition of thymidylate synthase. The active metabolites of 5-FU are 5-Fluorodeoxyuridylate (5-FdUMP), 5-Fluorodeoxyuridine triphosphate (5-FdUTP) and 5-Fluorouridine triphosphate (5-FUTP). The primary cytotoxic effect of 5-FU is believed to be inhibition of thymidylate synthase by 5-FdUMP. Secondary effects include incorporation of 5-FdUTP into DNA resulting in DNA strand breaks and incorporation of 5-FUTP into RNA causing abnormal RNA processing.

Application Procedures

First dissolved in DMSO (up to 25 mg/ml), then diluted to aqueous buffer. Solutions in DMSO may be stored at -20° for up to 1 month.

For research use only.