

**PRODUCT:****Pemetrexed****ALTERNATE NAME:**

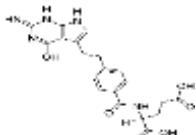
*N*-[4-[2-(2-Amino-4,7-dihydro-4-oxo-3*H*-pyrrolo[2,3-*d*]pyrimidin-5-yl)ethyl]benzoyl]-L-glutamic acid

**CATALOG NUMBER:**

B1862-50, 250

**AMOUNT:**

50 mg, 250 mg

**STRUCTURE:****MOLECULAR FORMULA:**

C<sub>20</sub>H<sub>21</sub>N<sub>5</sub>O<sub>6</sub>

**MOLECULAR WEIGHT:**

427.41

**CAS NUMBER:**

137281-23-3

**APPEARANCE:**

White solid

**SOLUBILITY:**

DMSO (>40 mg/ml)

**PURITY:**

≥98% by HPLC

**STORAGE:**

Store at -20 °C. Protect from air and light

**DESCRIPTION:**

Pemetrexed is a high affinity dihydrofolate reductase (DHFR) inhibitor ( $K_i = 7$  nM). Also inhibits thymidylate synthase, ALCART and glycynamide ribonucleotide formyltransferase ( $K_i$  values are 109 nM, and 3.5  $\mu$ M and 9.3  $\mu$ M, respectively). Inhibits proliferation of cancer cell lines *in vitro*.

**REFERENCES:**

Rothbart, S.B., *et al.* (2010). *Cancer Res.* **70**, 10299-10309.

**HANDLING:**

Do not take internally. Wear gloves and mask when handling the product! Avoid contact by all modes of exposure.

**RELATED PRODUCTS:**

Dihydrofolate Reductase Inhibitor Screening Kit (Colorimetric) (**K247**)

Dihydrofolate Reductase Activity Kit (Colorimetric) (**K246**)

Dihydrofolate Reductase (DHFR) (Human) ELISA Kit (**E4301**)

Dihydrofolate Reductase (DHFR) (Mouse) ELISA Kit (**E4302**)

Dihydrofolate Reductase (DHFR) (Rat) ELISA Kit (**E4303**)

Human Recombinant DHFR (**6382**)

Mouse Recombinant DHFR (**6383**)

**USAGE:**

**FOR RESEARCH USE ONLY! Not to be used in humans**