

| Catalog        | Unit  |
|----------------|-------|
| TBI2162 - 10MG | 10 mg |
| TBI2162 - 50MG | 50 mg |

### Product Details

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

**Alternate Names:** LY231514

**Molecular Formula:** C<sub>20</sub>H<sub>19</sub>N<sub>5</sub>Na<sub>2</sub>O<sub>6</sub> · 7H<sub>2</sub>O

**Formula Weight:** 597.5

**CAS Number:** 357166-29-1

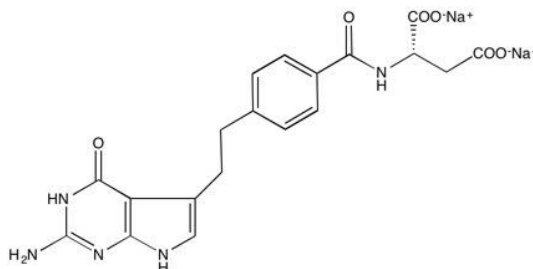
**Purity:** >98%

**Formulation:** Powder

**Solubility:** Soluble in Water (up to 100 mg/ml).

**Storage:** -20°C

**Stability:** ≥ 2 years.



### Applications

Antifolate; Antitumor agent

### Functions

Pemetrexed (357166-29-1) is a multi-targeted antifolate with antitumor activity. It potently inhibits folate-dependent enzymes involved in both purine and pyrimidine synthesis including thymidylate synthase ( $K_i = 109$  nM), dihydrofolate reductase ( $K_i = 7$  nM), glycinamide ribonucleotide formyltransferase ( $K_i = 9.3$  μM), and aminoimidazole carboxamide ribonucleotide formyltransferase ( $K_i = 3.6$  μM). A clinically useful anticancer agent. Indirectly activates the metabolic kinase AMPK and consequently influences the mTORC1 pathway in human carcinomas. Activation of AMPK is associated with pemetrexed resistance. Induces G<sub>0</sub>/G<sub>1</sub>-phase cell cycle arrest in esophageal squamous cell carcinoma cells.

### Application Procedures

Dissolved in water (up to 100 mg/ml). Solutions in distilled water may be stored at -20° for up to 3 months.

### Relative Products

|         |                                       |
|---------|---------------------------------------|
| TBI1170 | Mitomycin C                           |
| TBI1345 | E64, Cysteine protease inhibitor      |
| TBI1347 | E64d, Cysteine protease inhibitor     |
| TBI2064 | Chromomycin A3                        |
| TBI2069 | Cytochalasin B                        |
| TBI2794 | 5-EDU, DNA Click labeling probe       |
| TBI2071 | Cytochalasin D                        |
| TBI1286 | Bestatin, Aminopeptidase inhibitor    |
| TBI2140 | Gemcitabine                           |
| TBI2058 | Aphidicolin, DNA polymerase Inhibitor |

**For research use only.**