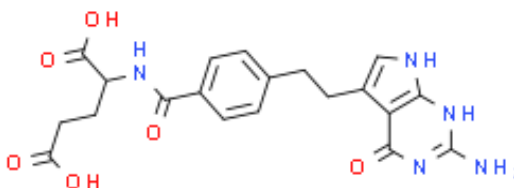


Product Data Sheet

Cas No.:	137281-23-3	Cat. No:	PC22144
Product Name:	Pemetrexed		
Product synonym:	培美曲塞二钠盐;N-[4-[2-(2-氨基-4,7-二氢-4-氧-1H-吡咯[2,3-D]嘧啶-5-基)乙基]苯甲酰]-L-谷氨酸;N-[4-[2-(2-氨基-4,7-二氢-4-氧代-1H-吡咯并[2,3-d]嘧啶-5-基)乙基]苯甲酰基]-L-谷氨酸二钠盐;培美曲塞酸;培美曲塞水合物;Pemetrexed Hydrate 培美曲塞水合物;培美曲塞;培美曲塞标准品;培美曲塞二钠;培美曲塞酸 标准品;培美曲塞酸（培美中六）;培美曲塞酸;N-[4-[2-(2-氨基-4,7-二氢-4-氧代-1H-吡咯并[2,3-d]嘧啶-5-基)乙基]苯甲酰基]-L-谷氨酸		
Chemical name:	Pemetrexed		
MF:	C20H21N5O6	FW:	427.4106
Purity:	99%	Batch No.:	-
Storage:			
Structural formula:			
λmax:	-	Formulation:	-
Solubility :			
SMILES :	O=C1C2=C(N=C(N([H])[H])N1[H])N([H])C([H])=C2C([H])([H])C([H])([H])C1C([H])=C([H])C(C(N([H])[C@]([H])(C(=O)O[H])C([H])([H])C([H])([H])C(=O)O[H])=O)=C([H])C=1[H]		
InChI Code:	-		
InChI Key:			
WARNING This product is not for human or veterinary use.			

Product Description

Pemetrexed (LY231514) 是一种叶酸拮抗剂 (antifolate)。Pemetrexed (LY231514) 抑制胸苷酸合成酶 (TS)，二氢叶酸还原酶 (DHFR) 和甘氨酸酰胺核苷酸甲酰转移酶 (GARFT)， K_i 分别为 1.3 nM，7.2 nM 和 65 nM。

生物活性	Pemetrexed (LY231514) is an antifolate, the K_i values of the pentaglutamate of Pemetrexed (LY231514) are 1.3, 7.2, and 65 nM for inhibits thymidylate synthase (TS), dihydrofolate reductase (DHFR), and glycineamide ribonucleotide formyltransferase (GARFT), respectively[1].
IC50 & Target[1][2]	K_i : 1.3 nM (TS), 7.2 nM (DHFR), 65 nM (GARFT)[1]

体外研究(In Vitro)	Pemetrexed (LY231514) disodium is a novel classical antifolate, the antitumor activity of which may result from simultaneous and multiple inhibition of several key folate-requiring enzymes via its polyglutamated metabolites. Pemetrexed (LY231514) is one of the best substrates that is known for the enzyme FPGS ($K_m=1.6 \mu\text{M}$ and $V_{\text{max}}/K_m=621$). It is likely that polyglutamation and the polyglutamated metabolites of LY231514 play profound roles in determining both the selectivity and the antitumor activity of this novel agent. Whereas LY231514 only moderately inhibits TS ($K_i=340 \text{ nM}$, recombinant mouse), the pentaglutamate of LY231514 is 100-fold more potent ($K_i=3.4 \text{ nM}$), making LY231514 one of the most potent folate-based TS inhibitors[1].
体内研究(In Vivo)	The group of mice treated with PC61 plus Pemetrexed demonstrates statistically longer survival than other groups. In a survival analysis, significantly better survival is observed in the group of mice treated with PC61 plus Pemetrexed compared with those treated with PC61 alone, rat IgG plus Pemetrexed, or no treatment[2].
包装储存	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month