

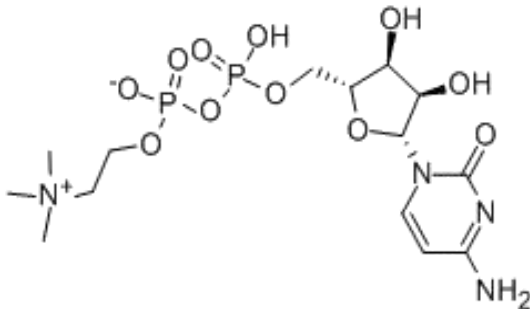


Wuhan HengHeDa Pharm Co., Ltd

Tel:86-27-84888681 Fax:86-27-84888682

Wuhan Economic& Technological Development Zone, Wuhan, China

CERTIFICATE OF ANALYSIS

Product name	CDP Choline	
CAS NO	987-78-0	
Molecular formul	C14H26N4O11P2	
Molecular weight	488.32	
Quantity	50KG	
Batch NO	HHD20220416	
Production date	2022.04.16	
Expiry Date	2024.04.15	
Test based on enterprise standard		
Test Item	Specification	Result
Appearance	White crystalline powder	Conforms
Identification	Chemical reaction	Positive reaction
	The retention time of a major peak meets the requirements	Conforms
	IR:consistent withe the spectrum obtained with reference substance.	Conforms
Acid value	Between 2.5~3.5	2.8

Clarity and color of solution	Clarifying, colorless	Conforms
Ammonium	$\leq 0.05\%$	Conforms
Heavy metals	$\leq 10\text{ppm}$	Conforms
Arsenic	$\leq 2\text{ppm}$	Conforms
Free phosphoric acids	$\leq 0.1\%$	Conforms
5'-CMP	$\leq 1.0\%$	0.1%
Loss on drying	$\leq 5.0\%$	3.7%
Purity(HPLC)	$\geq 98.0\%$	99.8%
Total plate count	$\leq 1000\text{CFU/g}$	10CFU/g
Fungi count	$\leq 100\text{CFU/g}$	1CFU/g
E.coli	Negative	Negative

Storage	Store in cool & dry place, keep away from strong light and heat.
Shelf life	2 years when properly stored.
Conclusion: This product complies with above specification.	

Inspector

Shen Wu

Director

King Yang

