

HitGen T4 DNA Ligase

Certificate of Analysis

Product Information

Product Name	T4 DNA Ligase
Lot Number	HG-T4-HGD200119
Active Unit	400 U/ μ L
Theoretical MW	55.3 kDa
Purification	Affinity Chromatography and Ion-exchange Chromatography
Appearance	Colorless Liquid
Package	40,000 U/tube *1 tube
Date of Manufacture	2020/01/19
Expiration Date	2021/01/19
Storage	-20 °C
Storage Buffer	10 mM Tris-HCl (pH 7.8), 100 mM NaCl, 1 mM DTT, 50% v/v glycerol
10X Ligation Buffer	500 mM Tris (pH 7.55), 500 mM NaCl, 100 mM MgCl ₂ , 25 mM ATP

Quality Control

Test Items	Method	Acceptance Criteria	Conclusion
Purity	RP-HPLC	Purity \geq 90%	Pass
	SDS-PAGE	Purity \geq 95%	Pass
		Yield $>$ 90%	Pass
Ligation Efficiency	LCMS	P1 Single chain $<$ 5%	Pass
		N-1% barely detectable	Pass

Definition of Active Unit

One cohesive end unit is defined as the amount of enzyme required to give 50% ligation of 6 μ g of Lambda-*Hind III* DNA in 30 minutes at 16 °C in a total reaction volume of 20 μ L.

Caution

For laboratory or manufacturing use only. If you have any questions about the Certificate of Analysis, please contact our customer service representatives at +86 (28) 8519 7385.

RP-HPLC Analysis

<Sample Information>

File Name: T4-40°C-1

Instrument: HPLC-2

Inject Volume: 70 µL

Method

Column: Boston Green C18 150 mm*4.6 mm 5 µm

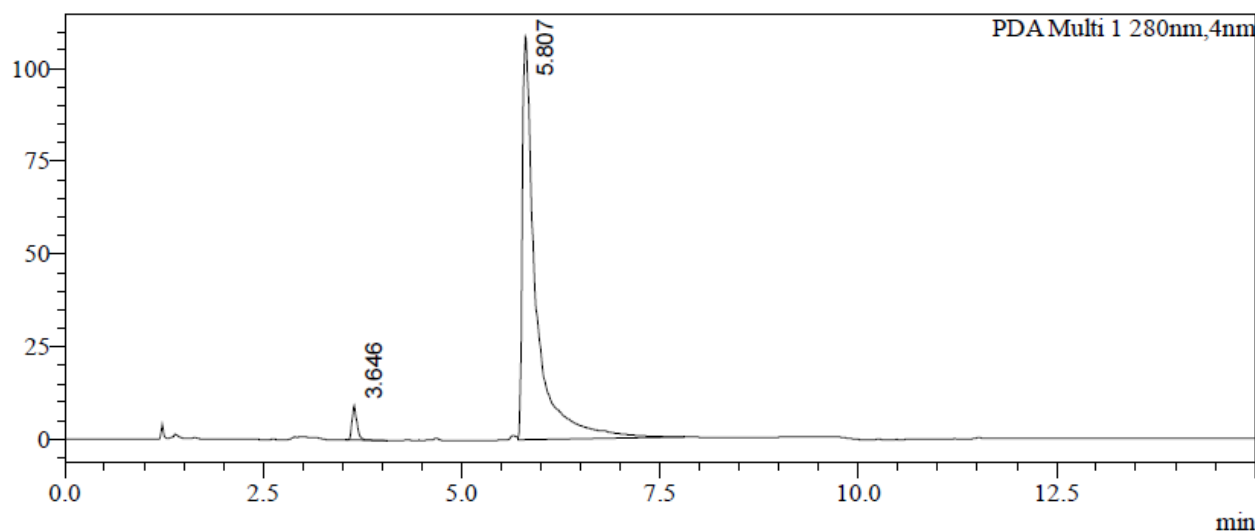
Mobile Phase: A: 0.05% TFA Water B: 0.05% TFA ACN

Gradient: B from 5% to 95% in 10.0 min and hold 95% for 5.0 min

Flow Rate: 1.5 mL/min Column Temperature: 40 °C

<Chromatogram>

mAU



<Chromatogram Peak Table>

Peak Table

PDA Ch1 280nm

Peak	Ret. Time	Area	Height	Talling.Factor	Resolution	Peak Purity	Area%
1	3.646	40459	9313	1.343	--	Not calculated	2.993
2	5.807	1311333	108776	4.158	11.434	Not calculated	97.007
总计		1351791	118089				100.000

Reported by: System

Reviewed by: Shaojie Wang

Analysis date: 20200119