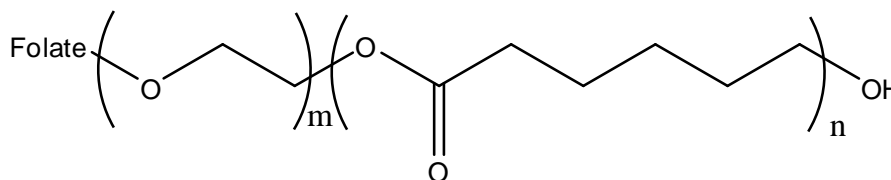


## Certificate of Analysis

### General properties:

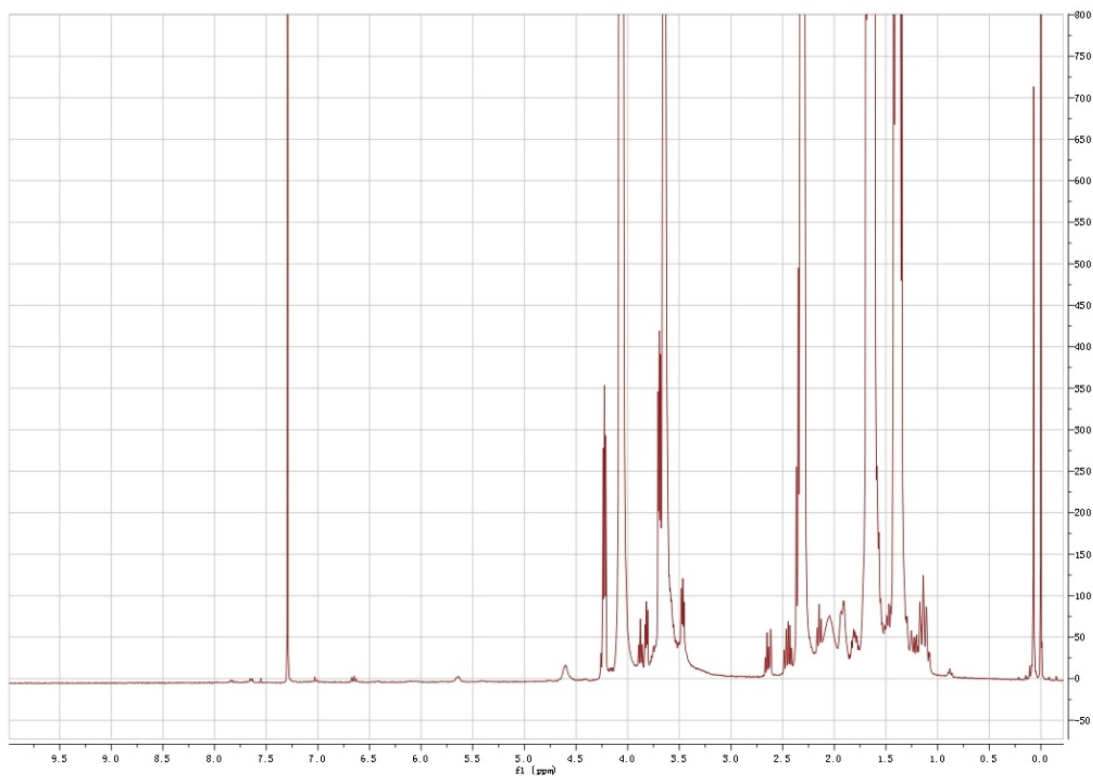
Name: PCL30-PEG45-FA  
Molecular Weight: 6000 Dalton  
Cat.#: R-Q-62514  
Lot.#: RP0161185  
Date of Analysis: 2016.08.26  
Recommended Retest date: 2017.08.26  
Stability: 12 months  
Storage: -20°C in the dark

### Structure

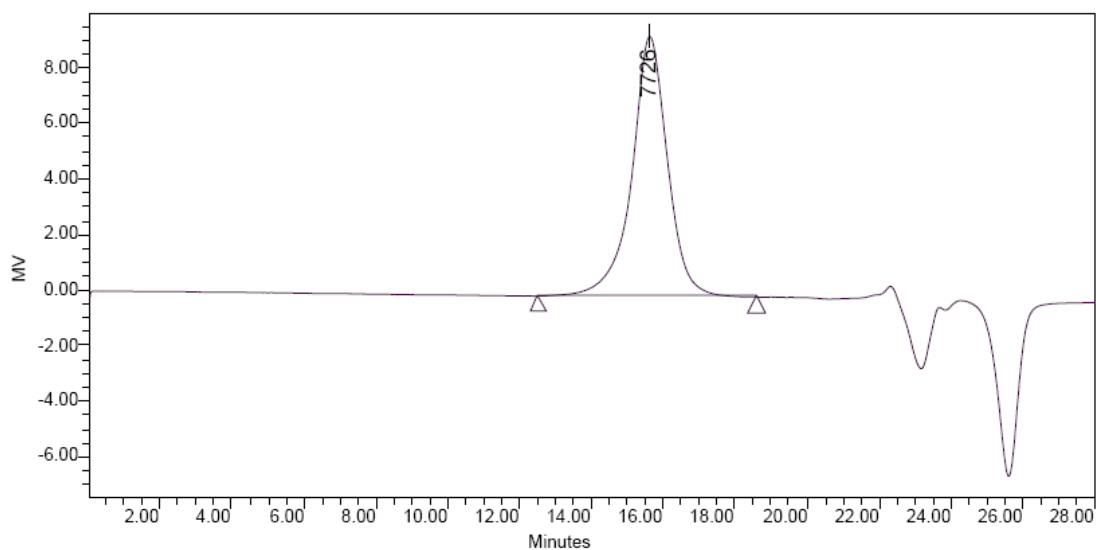


Items	Specification	Results
Appearance	Yellowish-brown solid	Yellowish-brown solid
<sup>1</sup> H NMR	Identical to the structure	Identical to the structure
Foreign Material	None	None
Substitution	>90%	>92%
PDI		<1.2

Report Date: 2016.08.26



**Broad Unknown Modified Universal Chromatogram**

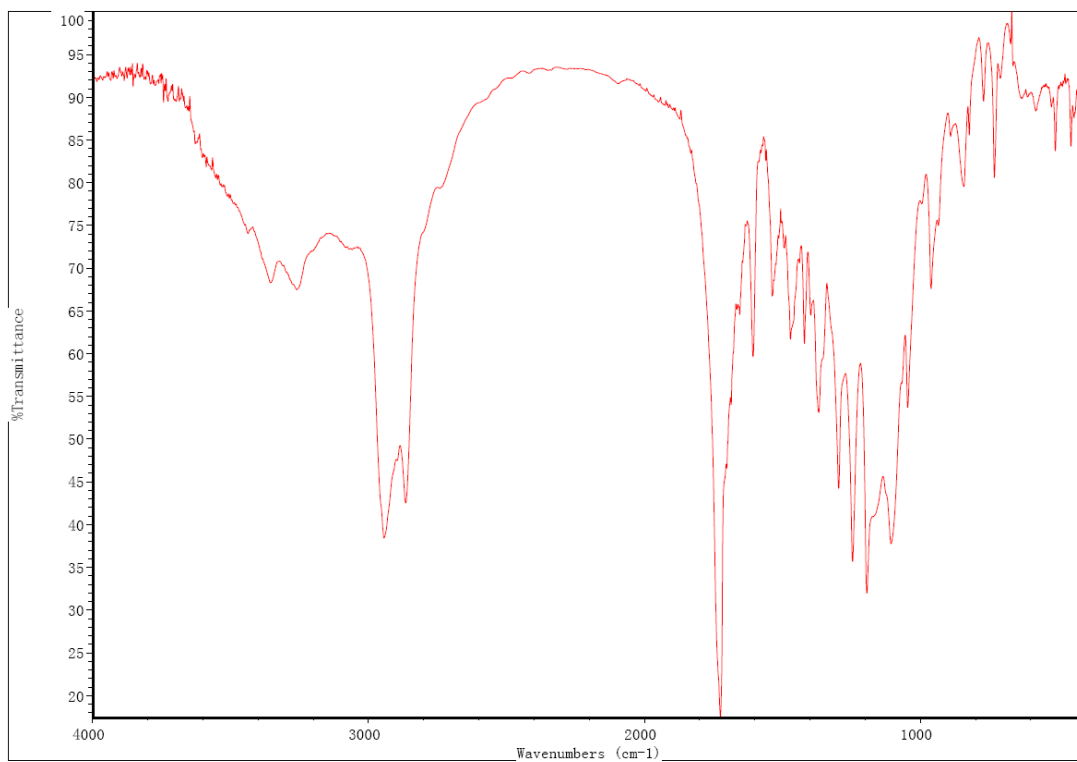


**Broad Unknown Modified Universal Peak Table**

Distribution Name	Mv (Daltons)	K (dl/g)	alpha	Intrinsic Viscosity (dl/g)	Mn (Daltons)	Mw (Daltons)	MP (Daltons)	Mz (Daltons)	Mz+1 (Daltons)	Polydispersity
1					7415	8170	7726	9192	10967	1.101723

**Broad Unknown Modified Universal Peak Table**

Mz/Mw	Mz+1/Mw	K (dl/g)	alpha	Intrinsic Viscosity (dl/g)
1.125155	1.342407			



**This product is for research use only, Not for human or animal use**

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