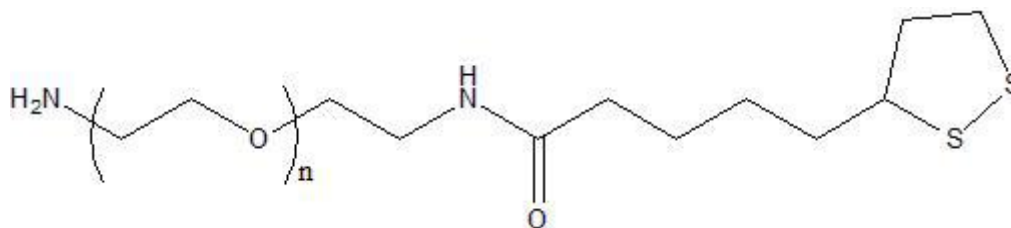


## Certificate of Analysis

### General properties:

Product Name: lipoic acid-PEG-NH<sub>2</sub>  
Molecular Weight: PEG MW:750/1000/2000/3400/5000 Dalton  
Catalog Number: R-8869  
Lot Number: RA0675927

### Product Structure:



### Product Specifications:

| Items                                  | Specification                  | Results                        |
|--|--------------------------------|--------------------------------|
| Appearance                             | Solid powder or viscous liquid | Solid powder or viscous liquid |
| <sup>1</sup> H NMR                     | Identical to the structure     | Identical to the structure     |
| Substitution of lipoic acid by NMR     | >90%                           | >90%                           |
| Substitution of NH <sub>2</sub> by NMR | >90%                           | >90%                           |

Date of Analysis: 2017.09.27

Recommended Retest date: 2018.09.27

Recommended Storage: -20°C

Stability: 1 year

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