

**Pel-Freez®****Certificate of Analysis****PRODUCT:** Rabbit Brain Cephalin**CODE NO:** 41052**LOT NO:** 28835**STORAGE:** At or below -10°C**EU REQUIREMENTS:** Material meets the requirements of the Regulation (EU) 142/2011 Chapter 8 Health Certificate.**PROCEDURE:** Cholesterol free Rabbit Brain Acetone Powder is extracted with chloroform, filtered through cheesecloth, and allowed to dry. The remaining residue is re-suspended in 0.85% saline solution, aliquoted, and frozen at or below -10 °C.

The product was derived from animals which received ante and post mortem inspection at U.S.D.A. Plant #P202, and found to be free of infectious and contagious diseases.

**ASSAYS:** <sup>31</sup>P-NMR of Rabbit Brain Cephalin A 5 mL sample was evaporated, reconstituted in 1 mL detergent and analyzed via <sup>31</sup>P-NMR. The sample solution was assayed at 512 scans, with shift interpretation for identification against known lipid standards. The molecular weight of phospholipid species is based on average brain phospholipid molecular weights. Original concentration given in mg/mL and in normalized weight (wt%) percent by <sup>31</sup>P-NMR.

| PL | ppm   | mM     | MW      | mg/mL | Wt% PL |
|----|-------|--------|---------|-------|--------|
| PE | -0.38 | 2.7240 | 768.61  | 0.42  | 16.18  |
| PC | -0.94 | 3.6048 | 770.935 | 0.56  | 21.48  |
| PS | -0.60 | 3.2009 | 824.966 | 0.53  | 20.41  |
| PI | -0.83 | 0.4902 | 974.764 | 0.10  | 3.69   |

Abbreviations: PE, phosphatidylethanolamine; PC, phosphatidylcholine; PS, phosphatidylserine; PI, phosphatidylinositol. The remaining phospholipids detected were lysophosphatidylethanolamine (LPE) and sphingomyelin (SM).

**QUALITY ASSURANCE****Quality Control Release Date:** February 11, 2014

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Revised 14JUL2014 to include additional information regarding <sup>31</sup>P-NMR results. C.Lyle, QS Mgr.**SUITABLE FOR FURTHER MANUFACTURE OR RESEARCH PURPOSES**