

Pointers for working with lipids different than MAG 9.9

MAG 7.7

- The trays are typically at lower precipitant values and using higher PEG (20% PEG 40 vs 40% PEG 300)
- Protein concentration is lower, typically ~20 mg/ml, dilute with buffer
- reconstitute at 1:1 w/w protein:MAG ratio or 1:1.1 w/v ratio (weight is better)
- When changing to a solo syringe after reconstitution is done, before placing the dispensing needle, take the plunger back about 1 mm to make room for the teflon bottom part of the needle. Because the reconstitution is fluid and not a paste, if you forget this some of the LCP will be pushed out of the needle.
- use slower LCP dispensing speed and smaller distance to plate

MAG 9.7 (Monopalmitolein)

- Water percentage is 50% (1:1 ratio)

MAG 7.9

- 45-50% water (ratio of 1:1 to 1:1.22)
- Misquitta *et al.* (2004) Rational design of lipid for membrane protein crystallization. *Journal of Structural Biology* **148**:169.