

Calculation of Working Molar Concentration for TPA

$$1 \text{ mg} = 10^{-3} \text{ g}$$

$$10 \text{ mg} = 10^{-2} \text{ g}$$

$$\text{mwt} = 616.8 \text{ g}$$

$$x = 10^{-2} \text{ g} / 616.8 \text{ g/mol}$$

$$x = 1.6 \times 10^{-5} \text{ mol}$$

$$2000 \times \text{Stock Solution} = \underline{0.1 \text{ mM}} \quad (10^{-4} \text{ M})$$

$$y = 1.6 \times 10^{-5} \text{ mol} / 10^{-4} \text{ mol/l} = 0.162 \text{ l}$$
$$= \underline{162 \text{ mls}}$$

$$0.1 \text{ mM} \text{ at } \frac{1}{2000 \times} \Rightarrow \underline{50 \text{ nM}}$$

$$\approx \underline{30.8 \text{ ng/ml}} \text{ (Stock solution)}$$

$$0.01 \text{ g} / 162 \text{ ml} = 0.0617 \text{ g/ml} = 61.7 \text{ g/ml}$$

For a Conc. of 0.1 mM resuspended in 162 mls

* I resuspended film of TPA in 1 ml of $100\% \text{ EtOH}$.

= 162 more concentrated

Aliquot into $10 \mu\text{l}$ quantities and add $1610 \mu\text{l}$ $100\% \text{ EtOH}$ to each tube to give a final conc. $\approx 0.1 \text{ mM}$ ($2000 \times$)

Cyclosporin concentration for T cell suppression in Primary B lymphocyte infection.

$0.1 \text{ mg/ml} \rightarrow 0.5 \text{ mg/ml}$ (10x more) in RPMI/FBS

$0.1 \text{ mg/ml} \rightarrow 0.5 \text{ mg/ml}$

(3 μl in 20 μl)

Cyclosporin