

## Daptomycin

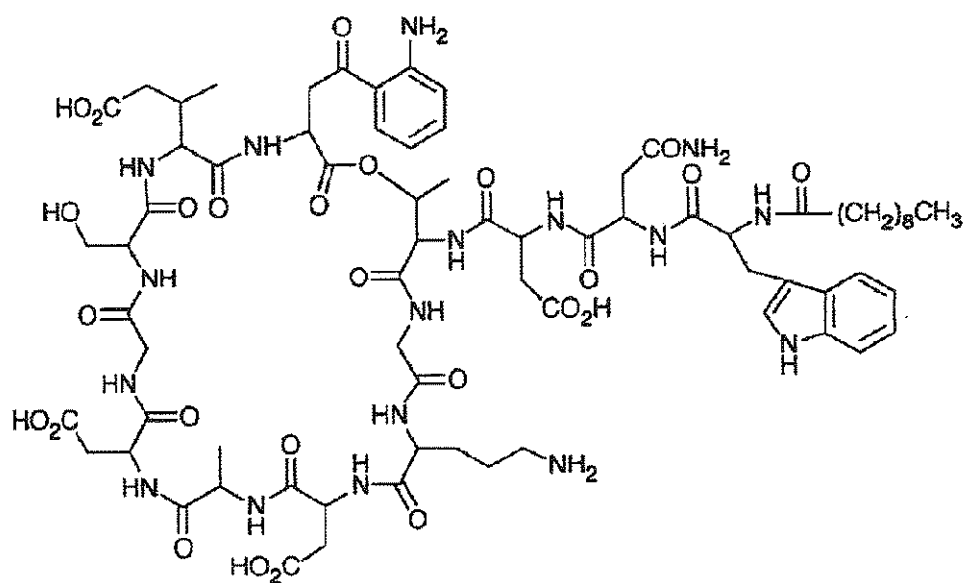
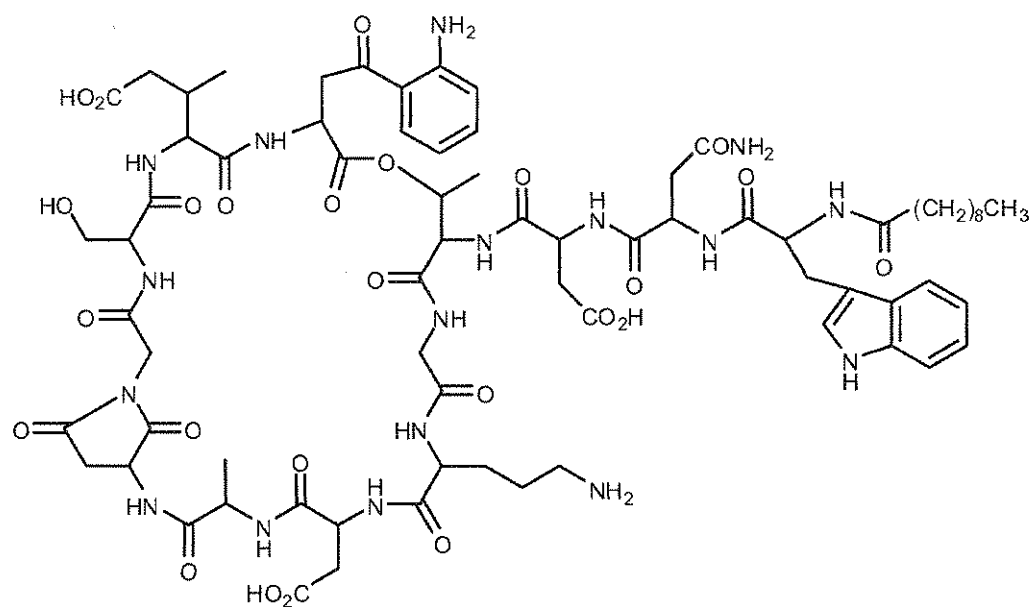
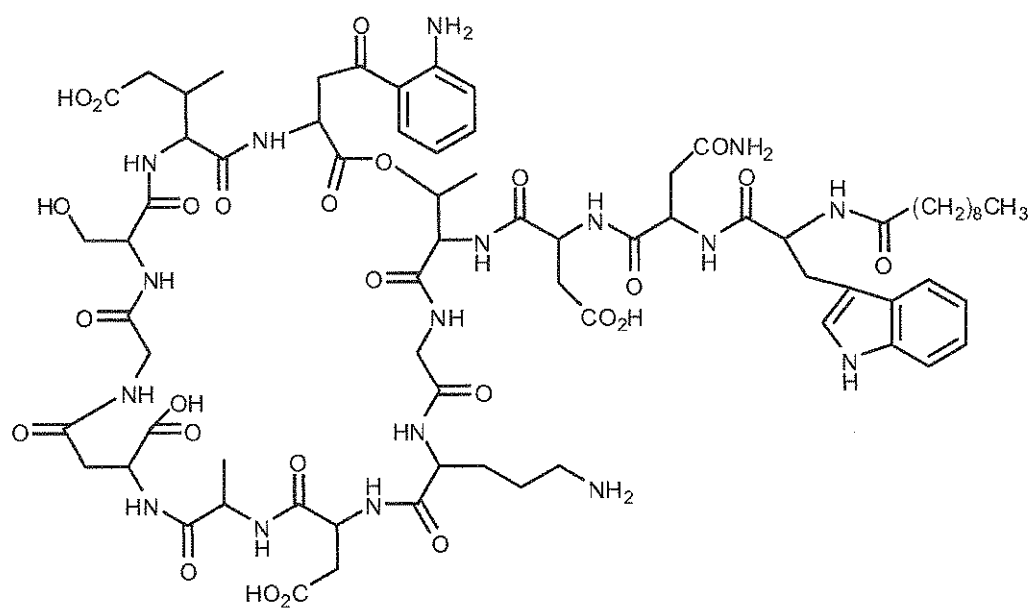


Fig. 1

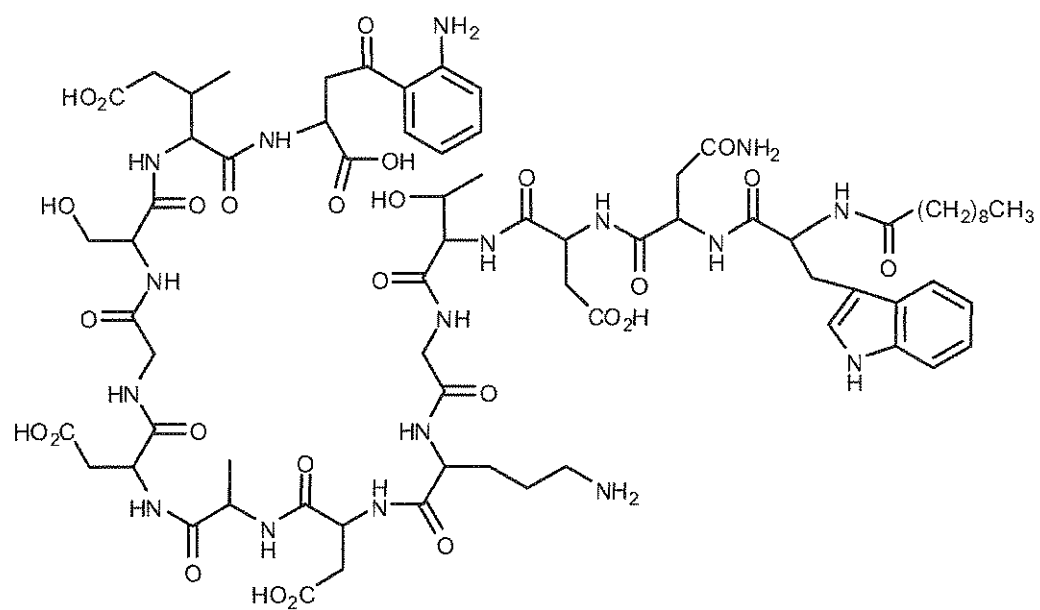


### Figure 2

“ $\beta$ -isomer” or “ $\beta$ -isomer of daptomycin”



**Figure 3**



lactone hydrolysis product

**FIG. 4**

Figure 5

**Table 6**

| No. | Liquid Formulation Components               | Recon Time (min) | Formulation (%w/v in solution)                        | Formulation (solid state) 500 mg/vial                   | Ratios<br>Dap : sugar<br>Dap : PO4<br>Dap : Mannitol | Molar Ratio<br>Dap : Sugar(s)    |
|-----|---------------------------------------------|------------------|-------------------------------------------------------|---------------------------------------------------------|------------------------------------------------------|----------------------------------|
| 0   | Daptomycin, 50 mM PO4, pH 7.0               | 1.4 min          |                                                       | 500mg Dap                                               |                                                      |                                  |
| 1   | 2.5% Trehalose, 50mM PO4, pH 7.0            | < 1              | 10.5% Dap<br>2.5% Trehalose<br>0.71% PO4              | 500mg Dap<br>119mg Tre<br>35.5mg PO4                    | 1 : 0.24<br>1 : 0.071                                | 1 : 2.13<br>1 : 0.81             |
| 2   | 5 % Trehalose, 50mM PO4, pH 7.0             | < 1              | 10.5% Dap<br>5% Trehalose<br>0.71% PO4                | 500mg Dap<br>238mg Tre<br>35.5mg PO4                    | 1 : 0.48<br>1 : 0.071                                | 1 : 4.26<br>1 : 0.81             |
| 3   | 10 % Trehalose, 50mM PO4, pH 7.0            | < 1              | 10.5% Dap<br>10% Trehalose<br>0.71% PO4               | 500mg Dap<br>476.2mg Tre<br>35.5mg PO4                  | 1 : 0.95<br>1 : 0.071                                | 1 : 8.52<br>1 : 0.81             |
| 4   | 2.5% Sucrose, 50mM PO4, pH 7.0              | < 1              | 10.5% Dap<br>2.5% Sucrose<br>0.71% PO4                | 500mg Dap<br>119mg Sucrose<br>35.5mg PO4                | 1 : 0.24<br>1 : 0.071                                | 1 : 1.12<br>1 : 0.81             |
| 5   | 5 % Sucrose, 50mM PO4, pH 7.0               | < 1              | 10.5% Dap<br>5% Sucrose<br>0.71% PO4                  | 500mg Dap<br>238mg Sucrose<br>35.5mg PO4                | 1 : 0.48<br>1 : 0.071                                | 1 : 2.24<br>1 : 0.81             |
| 6   | 10 % Sucrose, 50mM PO4, pH 7.0              | < 1              | 10.5% Dap<br>10% Sucrose<br>0.71% PO4                 | 500mg Dap<br>476.2mg Suc<br>35.5mg PO4                  | 1 : 0.95<br>1 : 0.071                                | 1 : 4.48<br>1 : 0.81             |
| 7   | 2.5% Sucrose, 3% Mannitol, 50mM PO4, pH 7.0 | < 1              | 10.5% Dap<br>2.5% Sucrose<br>3% Mannitol<br>0.71% PO4 | 500mg Dap<br>119mg Sucrose<br>142.9mg Man<br>35.5mg PO4 | 1 : 0.24<br>1 : 0.29<br>1 : 0.071                    | 1 : 1.12<br>1 : 2.52<br>1 : 0.81 |
| 8   | 5 % Sucrose, 3% Mannitol, 50mM PO4, pH 7.0  | < 1              | 10.5% Dap                                             | 500mg Dap                                               |                                                      |                                  |

| No. | Liquid Formulation Components               | Recon Time (min) | Formulation (%w/v in solution)                        | Formulation (solid state) 500 mg/vial                   | Ratios<br>Dap : sugar<br>Dap : PO4<br>Dap : Mannitol | Molar Ratio<br>Dap : Sugar(s)    |
|-----|---------------------------------------------|------------------|-------------------------------------------------------|---------------------------------------------------------|------------------------------------------------------|----------------------------------|
|     |                                             |                  | 5% Sucrose<br>3% Mannitol<br>0.71% PO4                | 238mg Sucrose<br>142.9mg Man<br>35.5mg PO4              | 1 : 0.48<br>1 : 0.29<br>1 : 0.071                    | 1 : 2.24<br>1 : 2.52<br>1 : 0.81 |
| 9   | 10 % Sucrose, 3% Mannitol, 50mM PO4, pH 7.0 | < 1              | 10.5% Dap<br>10% Sucrose<br>3% Mannitol<br>0.71% PO4  | 500mg Dap<br>476.2mg Suc<br>142.9mg Man<br>35.5mg PO4   | 1 : 0.95<br>1 : 0.29<br>1 : 0.071                    | 1 : 4.48<br>1 : 2.52<br>1 : 0.81 |
| 10  | 2.5% Sucrose, 6% Mannitol, 50mM PO4, pH 7.0 | < 1              | 10.5% Dap<br>2.5% Sucrose<br>6% Mannitol<br>0.71% PO4 | 500mg Dap<br>119mg Sucrose<br>285.8 Man<br>35.5mg PO4   | 1 : 0.24<br>1 : 0.57<br>1 : 0.071                    | 1 : 1.12<br>1 : 5.04<br>1 : 0.81 |
| 11  | 5% Sucrose, 6% Mannitol, 50mM PO4, pH 7.0   | < 1              | 10.5% Dap<br>5% Sucrose<br>6% Mannitol<br>0.71% PO4   | 500mg Dap<br>238mg Sucrose<br>285.8mg Man<br>35.5mg PO4 | 1 : 0.48<br>1 : 0.57<br>1 : 0.071                    | 1 : 2.24<br>1 : 5.04<br>1 : 0.81 |
| 12  | 10% Sucrose, 6% Mannitol, 50mM PO4, pH 7.0  | < 1              | 10.5% Dap<br>10% Sucrose<br>6% Mannitol<br>0.71% PO4  | 500mg Dap<br>476.2mg Suc<br>285.8mg Man<br>35.5mg PO4   | 1 : 0.95<br>1 : 0.57<br>1 : 0.071                    | 1 : 4.48<br>1 : 5.04<br>1 : 0.81 |
| 13  | 20 % Sucrose, 50mM PO4, pH 7.0              | < 1              | 10.5% Dap<br>20% Sucrose<br>0.71% PO4                 | 500mg Dap<br>952.4mg Suc<br>35.5mg PO4                  | 1 : 1.90<br>1 : 0.071                                | 1 : 8.96<br>1 : 0.81             |
| 14  | 25% Trehalose, 50mM PO4, pH 7.0             | < 1              | 10.5% Dap<br>25% Tre<br>0.71% PO4                     | 500mg Dap<br>1190.5mg Tre<br>35.5mg PO4                 | 1 : 2.38<br>1 : 0.071                                | 1 : 21.32<br>1 : 0.81            |
| 15  | 25% Trehalose, pH 4.7                       | < 1              | 10.5% Dap<br>25% Tre                                  | 500mg Dap<br>1190.5mg Tre                               | 1 : 2.38                                             | 1 : 21.32                        |
| 19  | 20% Sucrose, pH 4.7                         | < 1              | 10.5% Dap                                             | 500mg Dap                                               |                                                      |                                  |

| No. | Liquid Formulation Components                 | Recon Time (min) | Formulation (%w/v in solution)          | Formulation (solid state) 500 mg/vial     | Ratios<br>Dap : sugar<br>Dap : PO4<br>Dap : Mannitol | Molar Ratio<br>Dap : Sugar(s) |
|-----|-----------------------------------------------|------------------|-----------------------------------------|-------------------------------------------|------------------------------------------------------|-------------------------------|
|     |                                               |                  | 20% Sucrose                             | 952.4mg Suc                               | 1 : 1.90                                             | 1 : 8.96                      |
| 23  | 15 % Sucrose, 3% Mannitol, pH 4.7             | 0.3 – 1.5        | 10.5% Dap<br>15% Sucrose<br>3% Mannitol | 500mg Dap<br>750mg Sucrose<br>142.9mg Man | 1 : 1.5<br>1 : 0.29                                  | 1 : 6.73<br>1 : 2.52          |
| 35  | 20% Lactose, 50mM PO4, pH 7.0                 | < 1              | 10.5% Dap<br>20% Lactose<br>0.71% PO4   | 500mg Dap<br>952.4mg Lact<br>35.5mg PO4   | 1 : 1.90<br>1 : 0.071                                | 1 : 8.80<br>1 : 0.81          |
| 50  | 2.5% Lactose, 50 mM PO4, pH 7.0               | < 1              | 10.5% Dap<br>2.5% Lactose<br>0.71% PO4  | 500mg Dap<br>119mg Lac<br>35.5mg PO4      | 1 : 0.24<br>1 : 0.071                                | 1 : 1.10<br>1 : 0.81          |
| 51  | 2.5% Maltose, 50 mM PO4, pH 7.0               | 0.5 – 1.2        | 10.5% Dap<br>2.5% Maltose<br>0.71% PO4  | 500mg Dap<br>119mg Malt<br>35.5mg PO4     | 1 : 0.24<br>1 : 0.071                                | 1 : 1.12<br>1 : 0.81          |
| 52  | 2.5% Fructose, 50 mM PO4, pH 7.0              | < 1              | 10.5% Dap<br>2.5% Fructose<br>0.71% PO4 | 500mg Dap<br>119mg Fruc<br>35.5mg PO4     | 1 : 0.24<br>1 : 0.071                                | 1 : 2.13<br>1 : 0.81          |
| 53  | 2.5% Dextrose, 50 mM PO4, pH 7.0              | 0.6 – 1.1        | 10.5% Dap<br>2.5% Dextrose<br>0.71% PO4 | 500mg Dap<br>119mg Dex<br>35.5mg PO4      | 1 : 0.24<br>1 : 0.071                                | 1 : 2.13<br>1 : 0.81          |
| 54  | 2.5%Dextrose/Fructose (1:1), 50mM PO4, pH 7.0 | 0.5 – 1.2        | 10.5% Dap<br>2.5% Dex/Fruc<br>0.71% PO4 | 500mg Dap<br>119mg D/F<br>35.5mg PO4      | 1 : 0.24<br>1 : 0.071                                | 1 : 1.07 : 1.07<br>1 : 0.81   |
| 55  | 5% Lactose, 50mM PO4, pH 7.0                  | < 1              | 10.5% Dap<br>5% Lactose<br>0.71% PO4    | 500mg Dap<br>238mg Lact<br>35.5mg PO4     | 1 : 0.48<br>1 : 0.071                                | 1 : 2.20<br>1 : 0.81          |
| 56  | 5% Maltose, 50mM PO4, pH 7.0                  | < 1              | 10.5% Dap                               | 500mg Dap                                 |                                                      |                               |

| No. | Liquid Formulation Components               | Recon Time (min) | Formulation (%w/v in solution)        | Formulation (solid state) 500 mg/vial  | Ratios<br>Dap : sugar<br>Dap : PO4<br>Dap : Mannitol | Molar Ratio<br>Dap : Sugar(s) |
|-----|---------------------------------------------|------------------|---------------------------------------|----------------------------------------|------------------------------------------------------|-------------------------------|
|     |                                             |                  | 5% Maltose<br>0.71% PO4               | 238mg Malt<br>35.5mg PO4               | 1 : 0.48<br>1 : 0.071                                | 1 : 2.24<br>1 : 0.81          |
| 57  | 5% Fructose, 50mM PO4, pH 7.0               | < 1              | 10.5% Dap<br>5% Fructose<br>0.71% PO4 | 500mg Dap<br>238mg Fruc<br>35.5mg PO4  | 1 : 0.48<br>1 : 0.071                                | 1 : 4.26                      |
| 58  | 5% Dextrose. 50 mM PO4, pH 7.0              | < 1              | 10.5% Dap<br>5% Dextrose<br>0.71% PO4 | 500mg Dap<br>238mg Dex<br>35.5mg PO4   | 1 : 0.48<br>1 : 0.071                                | 1 : 4.26<br>1 : 0.81          |
| 59  | 5%Dextrose/Fructose (1:1), 50mM PO4, pH 7.0 | < 1              | 10.5% Dap<br>5% Dex/Fruc<br>0.71% PO4 | 500mg Dap<br>238mg D/F<br>35.5mg PO4   | 1 : 0.48<br>1 : 0.071                                | 1 : 2.13 : 2.13<br>1 : 0.81   |
| 60  | 2.5% Lactose, pH 4.7                        | 1.1              | 10.5% Dap<br>2.5% Lactose             | 500mg Dap<br>119mg Lac                 | 1 : 0.24                                             | 1 : 1.10                      |
| 61  | 2.5% Maltose, pH 4.7                        | 1.1              | 10.5% Dap<br>2.5% Maltose             | 500mg Dap<br>119mg Malt                | 1 : 0.24                                             | 1 : 1.12                      |
| 62  | 2.5% Fructose, pH 4.7                       | 1.2              | 10.5% Dap<br>2.5% Fructose            | 500mg Dap<br>119mg Fruc                | 1 : 0.24                                             | 1 : 2.13                      |
| 64  | 2.5%Dextrose/Fructose (1:1), pH 4.7         | 1.7              | 10.5% Dap<br>2.5% Dex/Fruc            | 500mg Dap<br>119mg D/F                 | 1 : 0.24                                             | 1 : 1.07 : 1.07               |
| 65  | 5% Lactose, pH 4.7                          | 1.6              | 10.5% Dap<br>5% Lactose               | 500mg Dap<br>238mg Lact                | 1 : 0.48                                             | 1 : 2.24                      |
| 71  | 6% Mannitol, 50 mM PO4, pH 7.0              | < 1              | 10.5% Dap<br>6% Mannitol<br>0.71% PO4 | 500mg Dap<br>285.8mg Man<br>35.5mg PO4 | 1 : 0.57<br>1 : 0.071                                | 1 : 5.04<br>1 : 0.81          |

| No. | Liquid Formulation Components | Recon Time (min) | Formulation (%w/v in solution)        | Formulation (solid state) 500 mg/vial      | Ratios<br>Dap : sugar<br>Dap : PO4<br>Dap : Mannitol | Molar Ratio<br>Dap : Sugar(s) |
|-----|-------------------------------|------------------|---------------------------------------|--------------------------------------------|------------------------------------------------------|-------------------------------|
| 73  | 5% Glycine, 50 mM PO4, pH 7.0 | < 1              | 10.5% Dap<br>5% Glycine<br>0.71% PO4  | 500mg Dap<br>238mg Glycine<br>35.5mg PO4   | 1 : 0.48<br>1 : 0.071                                | 1 : 10.31<br>1 : 0.81         |
| 75  | 15% Sucrose, 50mM PO4, pH 7.0 | < 1              | 10.5% Dap<br>15% Sucrose<br>0.71% PO4 | 500mg Dap<br>714.3mg Sucrose<br>35.5mg PO4 | 1 : 1.5<br>1 : 0.071                                 | 1 : 6.73<br>1 : 0.81          |
| 76  | 15% Sucrose, 50mM PO4, pH 7.0 | < 1              | 10.5% Dap<br>15% Sucrose<br>0.71% PO4 | 500mg Dap<br>714.3mg Sucrose<br>35.5mg PO4 | 1 : 1.5<br>1 : 0.071                                 | 1 : 6.73<br>1 : 0.81          |

Figure 6

Table 7

|    | Formulation ID                       | Recon Time<br>(min) | Formulation<br>(% w/v in solution)       | Formulation<br>(solid state)<br>500 mg/vial | Ratios<br>Dap : sugar<br>Dap : PO4<br>Dap : Mannitol | Molar Ratio<br>Dap : Excipients |
|----|--------------------------------------|---------------------|------------------------------------------|---------------------------------------------|------------------------------------------------------|---------------------------------|
| 00 | Daptomycin, pH 4.7                   | 5 min               |                                          | 500mg Dap                                   |                                                      |                                 |
| 16 | 2.5% Sucrose, pH 4.7                 | 2 - 4               | 10.5% Dap<br>2.5% Sucrose                | 500mg Dap<br>119mg Sucrose                  | 1 : 0.24                                             | 1 : 1.12                        |
| 17 | 5% Sucrose, pH 4.7                   | 0.7 - 2             | 10.5% Dap<br>5% Sucrose                  | 500mg Dap<br>238mg Sucrose                  | 1 : 0.48                                             | 1 : 2.24                        |
| 18 | 10 % Sucrose, pH 4.7                 | 0.3 - 3             | 10.5% Dap<br>10% Sucrose                 | 500mg Dap<br>476.2mg Suc                    | 1 : 0.95                                             | 1 : 4.48                        |
| 20 | 2.5% Sucrose, 3%<br>Mannitol, pH 4.7 | 2 - 8               | 10.5% Dap<br>2.5% Sucrose<br>3% Mannitol | 500mg Dap<br>119mg Sucrose<br>142.9mg Man   | 1 : 0.24<br>1 : 0.29                                 | 1 : 1.12<br>1 : 2.52            |
| 21 | 5% Sucrose, 3% Mannitol,<br>pH 4.7   | 2 - 6               | 10.5% Dap<br>5% Sucrose<br>3% Mannitol   | 500mg Dap<br>238mg Sucrose<br>142.9mg Man   | 1 : 0.48<br>1 : 0.29                                 | 1 : 2.24<br>1 : 2.52            |
| 22 | 10 % Sucrose, 3%<br>Mannitol, pH 4.7 | 0.5 - 2             | 10.5% Dap<br>10% Sucrose<br>3% Mannitol  | 500mg Dap<br>476.2mg Suc<br>142.9mg Man     | 1 : 0.95<br>1 : 0.29                                 | 1 : 4.48<br>1 : 2.52            |
| 63 | 2.5% Dextrose, pH 4.7                | 2                   | 10.5% Dap                                | 500mg Dap                                   |                                                      |                                 |

|    | Formulation ID                       | Recon Time<br>(min) | Formulation<br>(% w/v in solution) | Formulation<br>(solid state)<br>500 mg/vial | Ratios<br>Dap : sugar<br>Dap : PO4<br>Dap : Mannitol | Molar Ratio<br>Dap : Excipients |
|----|--------------------------------------|---------------------|------------------------------------|---------------------------------------------|------------------------------------------------------|---------------------------------|
|    |                                      |                     | 2.5% Dextrose                      | 119mg Dex                                   | 1 : 0.24                                             | 1 : 2.13                        |
| 66 | 5% Maltose,<br>pH 4.7                | 2.4                 | 10.5% Dap<br>5% Maltose            | 500mg Dap<br>238mg Malt                     | 1 : 0.48                                             | 1 : 2.20                        |
| 67 | 5% Fructose,<br>pH 4.7               | 2.5                 | 10.5% Dap<br>5% Fructose           | 500mg Dap<br>238mg Fruc                     | 1 : 0.48                                             | 1 : 4.26                        |
| 68 | 5% Dextrose, pH 4.7                  | 2.4                 | 10.5% Dap<br>5% Dextrose           | 500mg Dap<br>238mg Dex                      | 1 : 0.48                                             | 1 : 4.26                        |
| 69 | 5%Dextrose/Fructose (1:1),<br>pH 4.7 | 2.0                 | 10.5% Dap<br>5% Dex/Fruc           | 500mg Dap<br>238mg D/F                      | 1 : 0.48                                             | 1 : 2.13 : 2.13                 |
| 77 | 5 % Trehalose,<br>pH 4.7             | 3 – 4               | 10.5% Dap<br>5% Trehalose          | 500mg Dap<br>238mg Tre                      | 1 : 0.48                                             | 1 : 4.26                        |
|    | 2.5% Trehalose,<br>pH 4.7            | 3 – 5               | 10.5% Dap<br>2.5% Trehalose        | 500mg Dap<br>119mg Tre                      | 1 : 0.24                                             | 1 : 2.13                        |

Figure 7Table 8

| ID No. | Lipopeptide [A] | Compound [B] | Compound [C] | Buffering Agent [D]      | Compounding pH | Molar Ratio of existing components, respectively | Formulation in Solution upon addition of diluent (weight/volume)                   |
|--------|-----------------|--------------|--------------|--------------------------|----------------|--------------------------------------------------|------------------------------------------------------------------------------------|
| 1      | daptomycin      | Trehalose    |              | Sodium phosphate dibasic | about 7.0      | 1 : 2.13 : 0.77                                  | 10.5% Dap<br>2.5% Trehalose<br>0.71% Na <sub>2</sub> HPO <sub>4</sub>              |
| 2      | daptomycin      | Trehalose    |              | Sodium phosphate dibasic | about 7.0      | 1 : 4.26 : 0.77                                  | 10.5% Dap<br>5% Trehalose<br>0.71% Na <sub>2</sub> HPO <sub>4</sub>                |
| 3      | daptomycin      | Trehalose    |              | Sodium phosphate dibasic | about 7.0      | 1 : 8.53 : 0.77                                  | 10.5% Dap<br>10% Trehalose<br>0.71% Na <sub>2</sub> HPO <sub>4</sub>               |
| 4      | daptomycin      | Sucrose      |              | Sodium phosphate dibasic | about 7.0      | 1 : 1.12 : 0.77                                  | 10.5% Dap<br>2.5% Sucrose<br>0.71% Na <sub>2</sub> HPO <sub>4</sub>                |
| 5      | daptomycin      | Sucrose      |              | Sodium phosphate dibasic | about 7.0      | 1 : 2.24 : 0.77                                  | 10.5% Dap<br>5% Sucrose<br>0.71% Na <sub>2</sub> HPO <sub>4</sub>                  |
| 6      | daptomycin      | Sucrose      |              | Sodium phosphate dibasic | about 7.0      | 1 : 4.49 : 0.77                                  | 10.5% Dap<br>10% Sucrose<br>0.71% Na <sub>2</sub> HPO <sub>4</sub>                 |
| 7      | daptomycin      | Sucrose      | Mannitol     | Sodium phosphate dibasic | about 7.0      | 1 : 1.12 : 2.52 : 0.77                           | 10.5% Dap<br>2.5% Sucrose<br>3% Mannitol<br>0.71% Na <sub>2</sub> HPO <sub>4</sub> |
| 8      | daptomycin      | Sucrose      | Mannitol     | Sodium phosphate dibasic | about 7.0      | 1 : 2.24 : 2.52 : 0.77                           | 10.5% Dap<br>5% Sucrose<br>3% Mannitol<br>0.71% Na <sub>2</sub> HPO <sub>4</sub>   |

| ID No. | Lipopeptide [A] | Compound [B] | Compound [C] | Buffering Agent [D]      | Compounding pH | Molar Ratio of existing components, respectively | Formulation in Solution upon addition of diluent (weight/volume)                   |
|--------|-----------------|--------------|--------------|--------------------------|----------------|--------------------------------------------------|------------------------------------------------------------------------------------|
| 9      | daptomycin      | Sucrose      | Mannitol     | Sodium phosphate dibasic | about 7.0      | 1 : 4.49 : 2.52 : 0.77                           | 10.5% Dap<br>10% Sucrose<br>3% Mannitol<br>0.71% Na <sub>2</sub> HPO <sub>4</sub>  |
| 10     | daptomycin      | Sucrose      | Mannitol     | Sodium phosphate dibasic | about 7.0      | 1 : 1.12 : 5.04 : 0.77                           | 10.5% Dap<br>2.5% Sucrose<br>6% Mannitol<br>0.71% Na <sub>2</sub> HPO <sub>4</sub> |
| 11     | daptomycin      | Sucrose      | Mannitol     | Sodium phosphate dibasic | about 7.0      | 1 : 2.24 : 5.04 : 0.77                           | 10.5% Dap<br>5% Sucrose<br>6% Mannitol<br>0.71% Na <sub>2</sub> HPO <sub>4</sub>   |
| 12     | daptomycin      | Sucrose      | Mannitol     | Sodium phosphate dibasic | about 7.0      | 1 : 4.49 : 5.04 : 0.77                           | 10.5% Dap<br>10% Sucrose<br>6% Mannitol<br>0.71% Na <sub>2</sub> HPO <sub>4</sub>  |
| 13     | daptomycin      | Sucrose      |              | Sodium phosphate dibasic | about 7.0      | 1 : 8.98 : 0.77                                  | 10.5% Dap<br>20% Sucrose<br>0.71% Na <sub>2</sub> HPO <sub>4</sub>                 |
| 14     | daptomycin      | Trehalose    |              | Sodium phosphate dibasic | about 7.0      | 1 : 21.32 : 0.77                                 | 10.5% Dap<br>25% Trehalose<br>0.71% Na <sub>2</sub> HPO <sub>4</sub>               |
| 15     | daptomycin      | Trehalose    |              |                          | about 4.7      | 1 : 21.32                                        | 10.5% Dap<br>25% Trehalose                                                         |
| 16     | daptomycin      | Sucrose      |              |                          | about 4.7      | 1 : 1.12                                         | 10.5% Dap<br>2.5% Sucrose                                                          |
| 17     | daptomycin      | Sucrose      |              |                          | about 4.7      | 1 : 2.24                                         | 10.5% Dap<br>5% Sucrose                                                            |
| 18     | daptomycin      | Sucrose      |              |                          | about 4.7      | 1 : 4.49                                         | 10.5% Dap<br>10% Sucrose                                                           |
| 19     | daptomycin      | Sucrose      |              |                          | about 4.7      | 1 : 8.98                                         | 10.5% Dap<br>20% Sucrose                                                           |

| ID No. | Lipopeptide [A] | Compound [B] | Compound [C] | Buffering Agent [D]      | Compounding pH | Molar Ratio of existing components, respectively | Formulation in Solution upon addition of diluent (weight/volume)                  |
|--------|-----------------|--------------|--------------|--------------------------|----------------|--------------------------------------------------|-----------------------------------------------------------------------------------|
| 20     | daptomycin      | Sucrose      | Mannitol     |                          | about 4.7      | 1 : 1.12 : 2.52                                  | 10.5% Dap<br>2.5% Sucrose<br>3% Mannitol                                          |
| 21     | daptomycin      | Sucrose      | Mannitol     |                          | about 4.7      | 1 : 2.24 : 2.52                                  | 10.5% Dap<br>5% Sucrose<br>3% Mannitol                                            |
| 22     | daptomycin      | Sucrose      | Mannitol     |                          | about 4.7      | 1 : 4.49 : 2.52                                  | 10.5% Dap<br>10% Sucrose<br>3% Mannitol                                           |
| 23     | daptomycin      | Sucrose      | Mannitol     |                          | about 4.7      | 1 : 6.73 : 2.52                                  | 10.5% Dap<br>15% Sucrose<br>3% Mannitol                                           |
| 24     | daptomycin      | Sucrose      | Mannitol     |                          | about 4.7      | 1 : 1.12 : 5.04                                  | 10.5% Dap<br>2.5% Sucrose<br>6% Mannitol                                          |
| 25     | daptomycin      | Sucrose      | Mannitol     |                          | about 4.7      | 1 : 2.24 : 5.04                                  | 10.5% Dap<br>5% Sucrose<br>6% Mannitol                                            |
| 26     | daptomycin      | Sucrose      | Mannitol     |                          | about 4.7      | 1 : 4.49 : 5.04                                  | 10.5% Dap<br>10% Sucrose<br>6% Mannitol                                           |
| 27     | daptomycin      | Sucrose      | Mannitol     |                          | about 4.7      | 1 : 6.73 : 5.04                                  | 10.5% Dap<br>15% Sucrose<br>6% Mannitol                                           |
| 28     | daptomycin      | Sucrose      | Mannitol     | Sodium phosphate dibasic | about 7.0      | 1 : 6.73 : 2.24 : 0.77                           | 10.5% Dap<br>15% Sucrose<br>3% Mannitol<br>0.71% Na <sub>2</sub> HPO <sub>4</sub> |
| 29     | daptomycin      | Sucrose      | Mannitol     | Sodium phosphate dibasic | about 7.0      | 1 : 6.73 : 5.04 : 0.77                           | 10.5% Dap<br>15% Sucrose<br>6% Mannitol<br>0.71% Na <sub>2</sub> HPO <sub>4</sub> |

| ID No. | Lipopeptide [A] | Compound [B] | Compound [C] | Buffering Agent [D]      | Compounding pH | Molar Ratio of existing components, respectively | Formulation in Solution upon addition of diluent (weight/volume)                    |
|--------|-----------------|--------------|--------------|--------------------------|----------------|--------------------------------------------------|-------------------------------------------------------------------------------------|
| 30     | daptomycin      | Lactose      |              | Sodium phosphate dibasic | about 7.0      | 1 : 4.49 : 0.77                                  | 10.5% Dap<br>10% Lactose<br>0.71% Na <sub>2</sub> HPO <sub>4</sub>                  |
| 31     | daptomycin      | Maltose      |              | Sodium phosphate dibasic | about 7.0      | 1 : 4.49 : 0.77                                  | 10.5% Dap<br>10% Maltose<br>0.71% Na <sub>2</sub> HPO <sub>4</sub>                  |
| 32     | daptomycin      | Fructose     |              | Sodium phosphate dibasic | about 7.0      | 1 : 8.52 : 0.77                                  | 10.5% Dap<br>10% Fructose<br>0.71% Na <sub>2</sub> HPO <sub>4</sub>                 |
| 33     | daptomycin      | Dextrose     |              | Sodium phosphate dibasic | about 7.0      | 1 : 8.52 : 0.77                                  | 10.5% Dap<br>10% Dextrose<br>0.71% Na <sub>2</sub> HPO <sub>4</sub>                 |
| 34     | daptomycin      | Dextrose     | Fructose     | Sodium phosphate dibasic | about 7.0      | 1 : 4.26 : 4.26 : 0.77                           | 10.5% Dap<br>5% Dextrose<br>5% Fructose<br>0.71% Na <sub>2</sub> HPO <sub>4</sub>   |
| 35     | daptomycin      | Lactose      |              | Sodium phosphate dibasic | about 7.0      | 1 : 8.98 : 0.77                                  | 10.5% Dap<br>20% Lactose<br>0.71% Na <sub>2</sub> HPO <sub>4</sub>                  |
| 36     | daptomycin      | Maltose      |              | Sodium phosphate dibasic | about 7.0      | 1 : 8.98 : 0.77                                  | 10.5% Dap<br>20% Maltose<br>0.71% Na <sub>2</sub> HPO <sub>4</sub>                  |
| 37     | daptomycin      | Fructose     |              | Sodium phosphate dibasic | about 7.0      | 1 : 17.05 : 0.77                                 | 10.5% Dap<br>20% Fructose<br>0.71% Na <sub>2</sub> HPO <sub>4</sub>                 |
| 38     | daptomycin      | Dextrose     |              | Sodium phosphate dibasic | about 7.0      | 1 : 17.05 : 0.77                                 | 10.5% Dap<br>20% Dextrose<br>0.71% Na <sub>2</sub> HPO <sub>4</sub>                 |
| 39     | daptomycin      | Dextrose     | Fructose     | Sodium phosphate dibasic | about 7.0      | 1 : 8.52 : 8.52 : 0.77                           | 10.5% Dap<br>10% Dextrose<br>10% Fructose<br>0.71% Na <sub>2</sub> HPO <sub>4</sub> |

| ID No. | Lipopeptide [A] | Compound [B] | Compound [C] | Buffering Agent [D]      | Compounding pH | Molar Ratio of existing components, respectively | Formulation in Solution upon addition of diluent (weight/volume)     |
|--------|-----------------|--------------|--------------|--------------------------|----------------|--------------------------------------------------|----------------------------------------------------------------------|
| 40     | daptomycin      | Lactose      |              |                          | about 4.7      | 1 : 4.49                                         | 10.5% Dap<br>10% Lactose                                             |
| 41     | daptomycin      | Maltose      |              |                          | about 4.7      | 1 : 4.49                                         | 10.5% Dap<br>10% Maltose                                             |
| 42     | daptomycin      | Fructose     |              |                          | about 4.7      | 1 : 8.52                                         | 10.5% Dap<br>10% Fructose                                            |
| 43     | daptomycin      | Dextrose     |              |                          | about 4.7      | 1 : 8.52                                         | 10.5% Dap<br>10% Dextrose                                            |
| 44     | daptomycin      | Dextrose     | Fructose     |                          | about 4.7      | 1 : 4.26 : 4.26                                  | 10.5% Dap<br>5% Dextrose<br>5% Fructose                              |
| 45     | daptomycin      | Lactose      |              |                          | about 4.7      | 1 : 8.98                                         | 10.5% Dap<br>20% Lactose                                             |
| 46     | daptomycin      | Maltose      |              |                          | about 4.7      | 1 : 8.98                                         | 10.5% Dap<br>20% Maltose                                             |
| 47     | daptomycin      | Fructose     |              |                          | about 4.7      | 1 : 17.05                                        | 10.5% Dap<br>20% Fructose                                            |
| 48     | daptomycin      | Dextrose     |              |                          | about 4.7      | 1 : 17.05                                        | 10.5% Dap<br>20% Dextrose                                            |
| 49     | daptomycin      | Dextrose     | Fructose     |                          | about 4.7      | 1 : 8.52 : 8.52                                  | 10.5% Dap<br>10% Dextrose<br>10% Fructose                            |
| 50     | daptomycin      | Lactose      |              | Sodium phosphate dibasic | about 7.0      | 1 : 1.12 : 0.77                                  | 10.5% Dap<br>2.5% Lactose<br>0.71% Na <sub>2</sub> HPO <sub>4</sub>  |
| 51     | daptomycin      | Maltose      |              | Sodium phosphate dibasic | about 7.0      | 1 : 1.12 : 0.77                                  | 10.5% Dap<br>2.5% Maltose<br>0.71% Na <sub>2</sub> HPO <sub>4</sub>  |
| 52     | daptomycin      | Fructose     |              | Sodium phosphate dibasic | about 7.0      | 1 : 2.13 : 0.77                                  | 10.5% Dap<br>2.5% Fructose<br>0.71% Na <sub>2</sub> HPO <sub>4</sub> |

| ID No. | Lipopeptide [A] | Compound [B] | Compound [C] | Buffering Agent [D]      | Compounding pH | Molar Ratio of existing components, respectively | Formulation in Solution upon addition of diluent (weight/volume)                             |
|--------|-----------------|--------------|--------------|--------------------------|----------------|--------------------------------------------------|----------------------------------------------------------------------------------------------|
| 53     | daptomycin      | Dextrose     |              | Sodium phosphate dibasic | about 7.0      | 1 : 2.13 : 0.77                                  | 10.5% Dap<br>2.5% Dextrose<br>0.71% Na <sub>2</sub> HPO <sub>4</sub>                         |
| 54     | daptomycin      | Dextrose     | Fructose     | Sodium phosphate dibasic | about 7.0      | 1 : 1.07 : 1.07 : 0.77                           | 10.5% Dap<br>2.5% 1.25% Dextrose<br>1.25% Fructose<br>0.71% Na <sub>2</sub> HPO <sub>4</sub> |
| 55     | daptomycin      | Lactose      |              | Sodium phosphate dibasic | about 7.0      | 1 : 2.24 : 0.77                                  | 10.5% Dap<br>5% Lactose<br>0.71% Na <sub>2</sub> HPO <sub>4</sub>                            |
| 56     | daptomycin      | Maltose      |              | Sodium phosphate dibasic | about 7.0      | 1 : 2.24 : 0.77                                  | 10.5% Dap<br>5% Maltose<br>0.71% Na <sub>2</sub> HPO <sub>4</sub>                            |
| 57     | daptomycin      | Fructose     |              | Sodium phosphate dibasic | about 7.0      | 1 : 4.26 : 0.77                                  | 10.5% Dap<br>5% Fructose<br>0.71% Na <sub>2</sub> HPO <sub>4</sub>                           |
| 58     | daptomycin      | Dextrose     |              | Sodium phosphate dibasic | about 7.0      | 1 : 4.26 : 0.77                                  | 10.5% Dap<br>5% Dextrose<br>0.71% Na <sub>2</sub> HPO <sub>4</sub>                           |
| 59     | daptomycin      | Dextrose     | Fructose     | Sodium phosphate dibasic | about 7.0      | 1 : 2.13 : 2.13 : 0.77                           | 10.5% Dap<br>2.5% Dextrose<br>2.5% Fructose<br>0.71% Na <sub>2</sub> HPO <sub>4</sub>        |
| 60     | daptomycin      | Lactose      |              |                          | about 4.7      | 1 : 1.12                                         | 10.5% Dap<br>2.5% Lactose                                                                    |
| 61     | daptomycin      | Maltose      |              |                          | about 4.7      | 1 : 1.12                                         | 10.5% Dap<br>2.5% Maltose                                                                    |
| 62     | daptomycin      | Fructose     |              |                          | about 4.7      | 1 : 2.13                                         | 10.5% Dap<br>2.5% Fructose                                                                   |
| 63     | daptomycin      | Dextrose     |              |                          | about 4.7      | 1 : 2.13                                         | 10.5% Dap<br>2.5% Dextrose                                                                   |

| ID No. | Lipopeptide [A] | Compound [B] | Compound [C] | Buffering Agent [D]      | Compounding pH | Molar Ratio of existing components, respectively | Formulation in Solution upon addition of diluent (weight/volume)   |
|--------|-----------------|--------------|--------------|--------------------------|----------------|--------------------------------------------------|--------------------------------------------------------------------|
| 64     | daptomycin      | Dextrose     | Fructose     |                          | about 4.7      | 1 : 1.07 : 1.07 :                                | 10.5% Dap<br>1.25% Dextrose<br>1.25% Fructose                      |
| 65     | daptomycin      | Lactose      |              |                          | about 4.7      | 1 : 2.24                                         | 10.5% Dap<br>5% Lactose                                            |
| 66     | daptomycin      | Maltose      |              |                          | about 4.7      | 1 : 2.24                                         | 10.5% Dap<br>5% Maltose                                            |
| 67     | daptomycin      | Fructose     |              |                          | about 4.7      | 1 : 4.26                                         | 10.5% Dap<br>5% Fructose                                           |
| 68     | daptomycin      | Dextrose     |              |                          | about 4.7      | 1 : 4.26                                         | 10.5% Dap<br>5% Dextrose                                           |
| 69     | daptomycin      | Dextrose     | Fructose     |                          | about 4.7      | 1 : 2.13 : 2.13                                  | 10.5% Dap<br>2.5% Dextrose<br>2.5% Fructose                        |
| 70     | daptomycin      | Mannitol     |              |                          | about 4.7      | 1 : 5.04                                         | 10.5% Dap<br>6% Mannitol                                           |
| 71     | daptomycin      | Mannitol     |              | Sodium phosphate dibasic | about 7.0      | 1 : 5.04 : 0.77                                  | 10.5% Dap<br>6% Mannitol<br>0.71% Na <sub>2</sub> HPO <sub>4</sub> |
| 72     | daptomycin      | Glycine      |              |                          | about 4.7      | 1 : 10.23                                        | 10.5% Dap<br>5% Glycine                                            |
| 73     | daptomycin      | Glycine      |              | Sodium phosphate dibasic | about 7.0      | 1 : 10.23 : 0.77                                 | 10.5% Dap<br>5% Glycine<br>0.71% Na <sub>2</sub> HPO <sub>4</sub>  |
| 74     | daptomycin      | Sucrose      |              |                          | about 4.7      | 1 : 6.73                                         | 10.5% Dap<br>15% Sucrose                                           |

| ID No. | Lipopeptide [A] | Compound [B] | Compound [C] | Buffering Agent [D]      | Compounding pH | Molar Ratio of existing components, respectively | Formulation in Solution upon addition of diluent (weight/volume)   |
|--------|-----------------|--------------|--------------|--------------------------|----------------|--------------------------------------------------|--------------------------------------------------------------------|
| 75     | daptomycin      | Sucrose      |              | Sodium phosphate dibasic | about 7.0      | 1 : 6.73 : 0.77                                  | 10.5% Dap<br>15% Sucrose<br>0.71% Na <sub>2</sub> HPO <sub>4</sub> |
| 76     | daptomycin      | Sucrose      |              | Sodium phosphate dibasic | about 7.0      | 1 : 6.73 : 0.77                                  | 10.5% Dap<br>15% Sucrose<br>0.71% Na <sub>2</sub> HPO <sub>4</sub> |
| 77     | daptomycin      | Trehalose    |              |                          | about 4.7      | 1 : 4.26                                         | 10.5% Dap<br>5% Trehalose                                          |
| 78     | daptomycin      | Trehalose    |              |                          | about 4.7      | 1 : 8.53                                         | 10.5% Dap<br>10% Trehalose                                         |
| 79     | daptomycin      | Trehalose    |              |                          | about 4.7      | 1 : 14.92                                        | 10.5% Dap<br>17.5% Trehalose                                       |

Figure 8

Table 9

| Formulation ID | Formulation Description                                                            | Daptomycin Stability Ratio at 40 Degrees C |         |          |          |          |
|----------------|------------------------------------------------------------------------------------|--------------------------------------------|---------|----------|----------|----------|
|                |                                                                                    | T0                                         | 1 month | 2 months | 3 months | 6 months |
| 0              | Daptomycin Control with 50mM Phosphate buffer at pH 7.0 (without sugar or glycine) | 0.000                                      | 1.000   | 1.000    | 1.000    | 1.000    |
| 1              | 2.5% Trehalose, 50mM PO4, pH 7.0                                                   | 0.000                                      | 0.667   | 0.800    | 0.667    | 1.000    |
| 2              | 5 % Trehalose, 50mM PO4, pH 7.0                                                    | 0.000                                      | 0.867   | 0.867    | 0.714    | 0.871    |
| 3              | 10 % Trehalose, 50mM PO4, pH 7.0                                                   | 0.000                                      | 0.400   | 0.400    | 0.381    | 0.613    |
| 4              | 2.5% Sucrose, 50mM PO4, pH 7.0                                                     | 0.000                                      | 0.533   | 0.467    | 0.524    | 0.742    |
| 5              | 5 % Sucrose, 50mM PO4, pH 7.0                                                      | 0.000                                      | 0.467   | 0.533    | 0.476    | 0.645    |
| 6              | 10 % Sucrose, 50mM PO4, pH 7.0                                                     | 0.000                                      | 0.267   | 0.133    | 0.238    | 0.355    |
| 7              | 2.5% Sucrose, 3% Mannitol, 50mM PO4, pH 7.0                                        | 0.000                                      | 0.267   | 0.133    | 0.238    | 0.387    |
| 8              | 5 % Sucrose, 3% Mannitol, 50mM PO4, pH 7.0                                         | 0.000                                      | 0.267   | 0.133    | 0.190    | 0.258    |
| 9              | 10 % Sucrose, 3% Mannitol, 50mM PO4, pH 7.0                                        | 0.000                                      | -0.200  | 0.267    | 0.190    | 0.226    |
| 10             | 2.5% Sucrose, 6% Mannitol, 50mM PO4, pH 7.0                                        | 0.000                                      | -0.067  | 0.333    | 0.238    | 0.355    |
| 11             | 5% Sucrose, 6% Mannitol, 50mM PO4, pH 7.0                                          | 0.000                                      | -0.200  | 0.133    | 0.238    | 0.290    |
| 12             | 10% Sucrose, 6% Mannitol, 50mM PO4, pH 7.0                                         | 0.000                                      | 0.000   | 0.067    | 0.190    | 0.419    |
| 13             | 20 % Sucrose, 50mM PO4, pH 7.0                                                     | 0.000                                      | -0.267  | 0.133    | 0.143    | 0.226    |
| 14             | 25% Trehalose, 50mM PO4, pH 7.0                                                    | 0.000                                      | 0.133   | 0.533    | 0.381    | 0.484    |
| 15             | 25% Trehalose, pH 4.7                                                              | 0.000                                      | -0.067  | NT       | 0.286    | 0.323    |
| 16             | 2.5% Sucrose, PO4, pH 4.7                                                          | 0.000                                      | 0.333   | 0.600    | 0.429    | 0.581    |
| 17             | 5% Sucrose, PO4, pH 4.7                                                            | 0.000                                      | 0.133   | 0.267    | 0.190    | 0.323    |
| 18             | 10 % Sucrose, PO4, pH 4.7                                                          | 0.000                                      | 0.067   | 0.133    | 0.095    | 0.194    |
| 19             | 20% Sucrose, PO4, pH 4.7                                                           | 0.000                                      | -0.467  | -0.067   | 0.000    | 0.097    |
| 20             | 2.5% Sucrose, 3% Mannitol, pH 4.7                                                  | 0.000                                      | 0.000   | 0.200    | 0.429    | 0.484    |
| 21             | 5% Sucrose, 3% Mannitol, pH 4.7                                                    | 0.000                                      | 0.000   | 0.133    | 0.333    | 0.387    |

| Formulation ID | Formulation Description                                           | Daptomycin Stability Ratio at 40 Degrees C |         |          |          |          |  |
|----------------|-------------------------------------------------------------------|--------------------------------------------|---------|----------|----------|----------|--|
|                |                                                                   | T0                                         | 1 month | 2 months | 3 months | 6 months |  |
| 22             | 10 % Sucrose, 3% Mannitol, pH 4.7                                 | 0.000                                      | 0.333   | 0.200    | 0.381    | 0.226    |  |
| 23             | 15 % Sucrose, 3% Mannitol, pH 4.7                                 | 0.000                                      | 0.133   | 0.000    | 0.190    | 0.129    |  |
| 24             | 2.5% Sucrose, 6% Mannitol, pH 4.7                                 | 0.000                                      | 0.400   | 0.400    | 0.571    | 0.516    |  |
| 25             | 5% Sucrose, 6% Mannitol, pH 4.7                                   | 0.000                                      | 0.333   | 0.333    | 0.476    | 0.419    |  |
| 26             | 10% Sucrose, 6% Mannitol, pH 4.7                                  | 0.000                                      | 0.200   | 0.067    | 0.238    | 0.226    |  |
| 27             | 15% Sucrose, 6% Mannitol, pH 4.7                                  | 0.000                                      | 0.200   | 0.067    | 0.286    | 0.226    |  |
| 35             | 20%Lactose with 50mM Phosphate buffer at pH 7.0                   | 0.000                                      | 2.600   | 0.800    | 0.524    | 0.484    |  |
| 45             | 20% Lactose at pH 4.7                                             | 0.000                                      | 2.267   | 2.867    | 1.571    | 2.161    |  |
| 50             | 2.5%Lactose with 50mM Phosphate buffer at pH 7.0                  | 0.000                                      | 2.667   | 4.733    | 3.286    | 2.935    |  |
| 51             | 2.5%Maltose with 50mM Phosphate buffer at pH 7.0                  | 0.000                                      | 2.933   | 4.467    | 3.476    | 3.129    |  |
| 52             | 2.5% Fructose with 50mM Phosphate buffer at pH 7.0                | 0.000                                      | 3.133   | 4.800    | 3.905    | 4.032    |  |
| 53             | 2.5%Dextrose with 50mM Phosphate buffer at pH 7.0                 | 0.000                                      | 7.467   | 12.400   | 9.333    | 8.516    |  |
| 54             | 2.5% Dextrose/Fructose (1:1) with 50mM Phosphate buffer at pH 7.0 | 0.000                                      | 5.400   | 8.267    | 6.857    | 6.419    |  |
| 55             | 5.0% Lactose with 50mM Phosphate buffer at pH 7.0                 | 0.000                                      | 3.067   | 4.800    | 3.810    | 3.419    |  |
| 56             | 5.0% Maltose with 50mM Phosphate buffer at pH 7.0                 | 0.000                                      | 3.400   | 4.800    | 4.048    | 3.355    |  |
| 57             | 5.0%Fructosewith 50mM Phosphate buffer at pH 7.0                  | 0.000                                      | 2.533   | 4.133    | 3.190    | 3.355    |  |
| 58             | 5.0%Dextrosewith 50mM Phosphate buffer at pH 7.0                  | 0.000                                      | 7.667   | 11.133   | 8.905    | 8.258    |  |
| 59             | 5.0% Dextrose/Fructose(1:1)with 50mM Phosphate buffer at pH 7.0   | 0.000                                      | 4.267   | 7.600    | 6.524    | 6.161    |  |
| 60             | 2.5% Lactose pH 4.7                                               | 0.000                                      | 2.267   | 3.533    | 2.905    | 2.774    |  |
| 61             | 2.5% Maltose pH 4.7                                               | 0.000                                      | 2.133   | 3.600    | 2.905    | 2.645    |  |
| 62             | 2.5% Fructose pH 4.7                                              | 0.000                                      | 3.133   | 4.933    | 3.905    | 3.968    |  |

| Formulation ID | Formulation Description           | Daptomycin Stability Ratio at 40 Degrees C |         |          |          |          |  |
|----------------|-----------------------------------|--------------------------------------------|---------|----------|----------|----------|--|
|                |                                   | T0                                         | 1 month | 2 months | 3 months | 6 months |  |
| 63             | 2.5%Dextrose pH 4.7               | 0.000                                      | 9.267   | 14.400   | 10.952   | 9.903    |  |
| 64             | 2.5%Dextrose/Fructose(1:1) pH 4.7 | 0.000                                      | 5.000   | 9.267    | 7.571    | 7.645    |  |
| 65             | 5.0%Lactose pH 4.7                | 0.000                                      | 2.333   | 3.333    | 2.571    | 2.452    |  |
| 66             | 5.0%MaltosepH 4.7                 | 0.000                                      | 2.133   | 3.600    | 2.905    | 2.645    |  |
| 67             | 5.0%Fructose pH 4.7               | 0.000                                      | 2.200   | 4.467    | 3.810    | 3.581    |  |
| 68             | 5.0%Dextrose pH 4.7               | 0.000                                      | 4.200   | 8.867    | 7.000    | 7.516    |  |
| 69             | 5.0%Dextrose/Fructose(1:1) pH 4.7 | 0.000                                      | 3.333   | 7.200    | 6.048    | 6.452    |  |
| 70             | 6% Mannitol, pH 4.7               | 0.000                                      | 0.533   | 0.867    | 0.667    | 0.903    |  |
| 71             | 6% Mannitol, 50 mM PO4, pH 7.0    | 0.000                                      | 0.533   | 0.600    | 0.524    | 0.645    |  |
| 72             | 5% Glycine, pH 4.7                | 0.000                                      | 0.600   | 1.000    | 0.667    | 0.935    |  |
| 73             | 5% Glycine, 50 mM PO4, pH 7.0     | 0.000                                      | 1.267   | 1.867    | 1.524    | 1.742    |  |
| 74             | 15 % Sucrose, PO4, pH 4.7         | 0.000                                      | 0.000   | 0.200    | -0.095   | 0.161    |  |
| 75             | 15% Sucrose, 50mM PO4, pH 7.0     | 0.000                                      | 0.000   | 0.200    | 0.286    | 0.065    |  |
| 76             | 15% Sucrose, 50mM PO4, pH 7.0     | 0.000                                      | 0.067   | 0.267    | 0.048    | 0.226    |  |
| 77             | 5 % Trehalose, pH 4.7             | 0.000                                      | 0.487   | NT       | 0.595    | 0.639    |  |
| 78             | 10 % Trehalose, pH 4.7            | 0.000                                      | 0.420   | NT       | 0.490    | 0.458    |  |
| 79             | 17.5% Trehalose, pH 4.7           | 0.000                                      | 0.293   | NT       | 0.257    | 0.313    |  |