



**2017/18 PRODUCT CATALOGUE**  
**SACCHAROMYCES CEREVISIAE AMINO ACID**  
**DROP-OUT SUPPLEMENTS**

## CONTENTS

|          |  |           |   |
|----------|--|-----------|---|
| <b>3</b> | <b>Complete Supplement Mixture, (CSM)</b>  | <b>11</b> | <b>Kaiser Mixture, Synthetic</b>            |
| 3        | Complete CSM Mixture                       |           | <b>Complete Drop-Out Mixture, (SC)</b>      |
| 4        | Complete CSM Mixture                       | 11        | Complete SC Mixture                         |
| 4        | CSM single Drop-out                        | 12        | Complete SC Mixture                         |
| 5        | CSM Double Drop-out                        | 12        | SC Single Drop-outs                         |
| 6        | CSM Triple Drop-out                        | 12        | SC Double Drop-outs                         |
| 7        | CSM Quadruple Drop-out                     | 12        | SC Triple Drop-outs                         |
| 8        | CSM Multiple Drop-out                      | 12        | SC Quadruple Drop-outs                      |
|          |  | 12        | SC Multiple Drop-outs                       |
| <b>9</b> | <b>Hopkins Mixture, Synthetic</b>          | <b>13</b> | <b>Brent Supplement Mixture, (BSM)</b>      |
|          | <b>Complete Supplement Mixture, (SCSM)</b> | 13        | Complete BSM Mixture                        |
| 9        | Complete SCSM Mixture                      | 14        | BSM Single Drop-Outs                        |
| 10       | SCSM single Drop-outs                      | 14        | BSM Multiple Drop-Outs                      |
| 10       | SCSM Triple Drop-outs                      | 14        | BSM Double Drop-outs                        |
| 10       | SCSM Multiple Drop-outs                    | <b>15</b> | <b>Hollenberg Supplement Mixture, (HSM)</b> |
| 10       | SCSM Double Drop-outs                      | 15        | Complete HSM Mixture                        |
| 10       | SCSM Quadruple Drop-outs                   | 16        | HSM Single Drop-Outs                        |
|          |  | 16        | HSM Triple Drop-Outs                        |
|          |  | 16        | HSM Double Drop-outs                        |
|          |  | 16        | HSM Multiple Drop-Outs                      |

## SACCHAROMYCES CEREVISIAE AMINO ACID DROP-OUT SUPPLEMENTS

Drop-Out supplements are based upon a standard mixture of Amino acids, Vitamins and other components used to supplement encountered auxothropies. In each of the Drop-Out mixtures as provided by Formedium™ every component is provided except one or more supplements of interest, i.e. the “dropped out” supplements.

Formedium™ is producing five different groups of Drop-Out supplements based on five basic amino acid

mixtures as described by different authors. Each basic mixture supports optimal growth of yeast, but lacks one or more essential nutrients, useful to select for auxotrophic requirements and transformants.

For more detailed information about all different Drop-Out formulations derived from each basic amino acid supplement mixture, please choose from the categories displayed below.

# COMPLETE SUPPLEMENT MIXTURE, (CSM)

## Saccharomyces Cerevisiae Drop-Out Supplements

### Complete Supplement Mixture (CSM)

Complete Supplement Mixture (CSM) is a combination of Amino Acids, Vitamins and other essential components to support a vigorous growth of cells in CSM supplemented medium. Yeast Nitrogen Base media without Amino Acids supplemented with CSM have been proven to be an excellent combination for the cultivation of almost all strains of Saccharomyces Cerevisiae and to supplement encountered auxotrophies.

CSM is also a basis for many “Drop-Out” mixtures to select for auxotrophic requirements and transformants. Each CSM Drop-Out mixture contain all components except for one to five essential nutrients, i.e. the “dropped out” supplements. Some CSM Drop-Out mixtures are also available with additions of extra Amino Acids and other components.

Complete Supplement Mixture formulations are available in 10 gram and 100 gram pack sizes. If you would like to order, or get a quote, on a larger pack size, please contact us. Please enquire about custom made formulations.

## COMPLETE CSM MIXTURE

### Size

10g  
100g

| Formula         | mg/l |
|-----------------|------|
| Adenine         | 10   |
| L-Arginine      | 50   |
| L-Aspartic acid | 80   |
| L-Histidine HCl | 20   |
| L-Isoleucine    | 50   |
| L-Leucine       | 100  |
| L-Lysine HCl    | 50   |
| L-Methionine    | 20   |
| L-Phenylalanine | 50   |
| L-Threonine     | 100  |
| L-Tryptophan    | 50   |
| L-Tyrosine      | 50   |
| Uracil          | 20   |
| Valine          | 140  |
| Total           | 790  |



GHS07 Skin & Eye Irritation

## COMPLETE CSM MIXTURE

| Formulation   | mg/l | 10g     | 100g    |
|---------------|------|---------|---------|
| CSM           | 790  | DCS0011 | DCS0019 |
| CSM, + 20 Ade | 800  | DCS0021 | DCS0029 |
| CSM, + 40 Ade | 820  | DCS0031 | DCS0039 |

## CSM SINGLE DROP-OUT

| Formulation         | mg/l | 10g     | 100g    |
|---------------------|------|---------|---------|
| CSM, -Ade           | 780  | DCS0041 | DCS0049 |
| CSM, -Arg           | 740  | DCS0051 | DCS0059 |
| CSM, -Asp           | 710  | DCS0061 | DCS0069 |
| CSM, -His           | 770  | DCS0071 | DCS0079 |
| CSM, -Iso           | 740  | DCS0081 | DCS0089 |
| CSM, -Leu           | 690  | DCS0091 | DCS0099 |
| CSM, -Lys           | 740  | DCS0101 | DCS0109 |
| CSM, -Met           | 770  | DCS0111 | DCS0119 |
| CSM, -Phe           | 740  | DCS0121 | DCS0129 |
| CSM, -Thr           | 690  | DCS0131 | DCS0139 |
| CSM, -Trp           | 740  | DCS0141 | DCS0149 |
| CSM, -Tyr           | 740  | DCS0151 | DCS0159 |
| CSM, -Ura           | 770  | DCS0161 | DCS0169 |
| CSM, -Val           | 650  | DCS0171 | DCS0179 |
| CSM, -Arg, + 40 Ade | 770  | DCS0181 | DCS0189 |
| CSM, -His, + 20 Ade | 780  | DCS0191 | DCS0199 |
| CSM, -His, + 40 Ade | 800  | DCS0201 | DCS0209 |

| Formulation         | mg/l | 10g     | 100g    |
|---------------------|------|---------|---------|
| CSM, -Leu, + 5 Ade  | 695  | DCS0211 | DCS0219 |
| CSM, -Leu, + 20 Ade | 700  | DCS0221 | DCS0229 |
| CSM, -Leu, + 40 Ade | 720  | DCS0231 | DCS0239 |
| CSM, -Lys, + 40 Ade | 770  | DCS0241 | DCS0249 |
| CSM, -Trp, + 5 Ade  | 735  | DCS0251 | DCS0259 |
| CSM, -Trp, + 20 Ade | 750  | DCS0261 | DCS0269 |
| CSM, -Ura, + 20 Ade | 780  | DCS0271 | DCS0279 |
| CSM, -Ura, + 40 Ade | 800  | DCS0281 | DCS0289 |
| CSM, -Trp, + 10 Ala | 750  | DCS0291 | DCS0299 |
| CSM, -Trp, + 25 Ala | 765  | DCS0301 | DCS0309 |
| CSM, -Trp, + 50 Ala | 790  | DCS0311 | DCS0319 |
| CSM, -His, + 10 Ala | 780  | DCS0321 | DCS0329 |
| CSM, -His, + 25 Ala | 795  | DCS0331 | DCS0339 |
| CSM, -His, + 50 Ala | 820  | DCS0341 | DCS0349 |

## CSM DOUBLE DROP-OUT

| Formulation     | mg/l | 10g     | 100g    |
|-----------------|------|---------|---------|
| CSM, -Ade, -Arg | 730  | DCS0351 | DCS0359 |
| CSM, -Ade, -His | 760  | DCS0361 | DCS0369 |
| CSM, -Ade, -Leu | 680  | DCS0371 | DCS0379 |
| CSM, -Ade, -Lys | 730  | DCS0381 | DCS0389 |
| CSM, -Ade, -Met | 760  | DCS0391 | DCS0399 |
| CSM, -Ade, -Trp | 730  | DCS0401 | DCS0409 |
| CSM, -Ade, Ura  | 760  | DCS0411 | DCS0419 |
| CSM, -Arg, -His | 720  | DCS0421 | DCS0429 |
| CSM, -Arg, -Leu | 640  | DCS0431 | DCS0439 |
| CSM, -Arg, -Trp | 690  | DCS0441 | DCS0449 |
| CSM, -Arg, -Ura | 720  | DCS0451 | DCS0459 |
| CSM, -His, -Leu | 670  | DCS0461 | DCS0469 |
| CSM, -His, -Lys | 720  | DCS0471 | DCS0479 |
| CSM, -His, -Met | 750  | DCS0481 | DCS0489 |
| CSM, -His, -Thr | 670  | DCS0491 | DCS0499 |
| CSM, -His, -Trp | 720  | DCS0501 | DCS0509 |
| CSM, -His, -Tyr | 720  | DCS0511 | DCS0519 |
| CSM, -His, -Ura | 750  | DCS0521 | DCS0529 |
| CSM, -Leu, -Lys | 640  | DCS0531 | DCS0539 |
| CSM, -Leu, -Met | 670  | DCS0541 | DCS0549 |
| CSM, -Leu, -Thr | 590  | DCS0551 | DCS0559 |
| CSM, -Leu, -Trp | 640  | DCS0561 | DCS0569 |
| CSM, -Leu, -Tyr | 640  | DCS0571 | DCS0579 |
| CSM, -Leu, -Ura | 670  | DCS0581 | DCS0589 |
| CSM, -Lys, -Met | 720  | DCS0591 | DCS0599 |
| CSM, -Lys, -Thr | 640  | DCS0601 | DCS0609 |
| CSM, -Lys, -Trp | 690  | DCS0611 | DCS0619 |
| CSM, -Lys, -Tyr | 690  | DCS0621 | DCS0629 |
| CSM, -Lys, -Ura | 720  | DCS0631 | DCS0639 |
| CSM, -Met, -Trp | 720  | DCS0641 | DCS0649 |

| Formulation               | mg/l | 10g     | 100g    |
|---------------------------|------|---------|---------|
| CSM, -Met, -Ura           | 750  | DCS0651 | DCS0659 |
| CSM, -Thr, Trp            | 640  | DCS0661 | DCS0669 |
| CSM, -Thr, -Ura           | 670  | DCS0671 | DCS0679 |
| CSM, -Trp, -Tyr           | 690  | DCS0681 | DCS0689 |
| CSM, -Trp, -Ura           | 720  | DCS0691 | DCS0699 |
| CSM, -Tyr, -Ura           | 720  | DCS0701 | DCS0709 |
| CSM, -His, -Leu, + 20 Ade | 680  | DCS0711 | DCS0719 |
| CSM, -His, -Leu, + 40 Ade | 700  | DCS0721 | DCS0729 |
| CSM, -His, -Trp, + 20 Ade | 730  | DCS0731 | DCS0739 |
| CSM, -His, -Trp, + 40 Ade | 750  | DCS0741 | DCS0749 |
| CSM, -His, -Ura, + 40 Ade | 780  | DCS0751 | DCS0759 |
| CSM, -Leu, -Met, + 40 Ade | 700  | DCS0761 | DCS0769 |
| CSM, -Leu, -Trp, + 20 Ade | 650  | DCS0771 | DCS0779 |
| CSM, -Leu, -Trp, + 40 Ade | 670  | DCS0781 | DCS0789 |
| CSM, -Leu, -Ura, + 40 Ade | 700  | DCS0791 | DCS0799 |
| CSM, -Trp, -Ura, + 40 Ade | 750  | DCS0801 | DCS0809 |
| CSM, -Leu, -Ura, + 30 Ser | 700  | DCS0811 | DCS0819 |

## CSM TRIPLE DROP-OUT

| Formulation           | mg/l | 10g     | 100g    |
|-----------------------|------|---------|---------|
| CSM, -Ade, -Arg, -Lys | 680  | DCS0821 | DCS0829 |
| CSM, -Ade, -His, -Leu | 660  | DCS0831 | DCS0839 |
| CSM, -Ade, -His, -Trp | 710  | DCS0841 | DCS0849 |
| CSM, -Ade, -His, -Ura | 740  | DCS0851 | DCS0859 |
| CSM, -Ade, -Leu, -Met | 660  | DCS0861 | DCS0869 |
| CSM, -Ade, -Leu, -Trp | 630  | DCS0871 | DCS0879 |
| CSM, -Ade, -Leu, -Ura | 660  | DCS0881 | DCS0889 |
| CSM, -Ade, -Met, -Trp | 710  | DCS0891 | DCS0899 |
| CSM, -Ade, -Met, -Ura | 740  | DCS0901 | DCS0909 |
| CSM, -Ade, -Trp, -Ura | 710  | DCS0911 | DCS0919 |
| CSM, -Arg, -His, -Lys | 670  | DCS0921 | DCS0929 |
| CSM, -Arg, -His, -Ura | 700  | DCS0931 | DCS0939 |
| CSM, -Arg, -Leu, -Ura | 620  | DCS0941 | DCS0949 |
| CSM, -Arg, -Trp, -Ura | 670  | DCS0951 | DCS0959 |
| CSM, -His, -Leu, -Lys | 620  | DCS0961 | DCS0969 |
| CSM, -His, -Leu, -Trp | 620  | DCS0971 | DCS0979 |
| CSM, -His, -Leu, -Met | 650  | DCS0981 | DCS0989 |
| CSM, -His, -Leu, -Ura | 650  | DCS0991 | DCS0999 |
| CSM, -His, -Lys, -Trp | 670  | DCS1001 | DCS1009 |
| CSM, -His, -Lys, -Ura | 700  | DCS1011 | DCS1019 |
| CSM, -His, -Met, -Trp | 700  | DCS1021 | DCS1029 |
| CSM, -His, -Met, -Ura | 730  | DCS1031 | DCS1039 |
| CSM, -His, -Trp, -Val | 580  | DCS1041 | DCS1049 |

| Formulation   | mg/l | 10g     | 100g    |
|---|------|---------|---------|
| CSM, -His, -Trp, -Ura                               | 700  | DCS1051 | DCS1059 |
| CSM, -Leu, -Lys, Trp                                | 590  | DCS1061 | DCS1069 |
| CSM, -Leu, -Lys, Ura                                | 620  | DCS1071 | DCS1079 |
| CSM, -Leu, -Met, -Trp                               | 620  | DCS1081 | DCS1089 |
| CSM, -Leu, -Met, -Ura                               | 650  | DCS1091 | DCS1099 |
| CSM, -Leu, -Trp, -Ura                               | 620  | DCS1101 | DCS1109 |
| CSM, -Lys, -Trp, -Ura                               | 670  | DCS1111 | DCS1119 |
| CSM, -Lys, -Tyr, -Ura                               | 670  | DCS1121 | DCS1129 |
| CSM, -Met, -Trp, -Ura                               | 700  | DCS1131 | DCS1139 |
| CSM, -Phe, -Trp, -Tyr                               | 640  | DCS1141 | DCS1149 |
| CSM, -His, -Leu, -Trp, + 20 Ade                     | 630  | DCS1151 | DCS1159 |
| CSM, -His, -Leu, -Trp, + 40 Ade                     | 650  | DCS1161 | DCS1169 |
| CSM, -His, -Leu, -Ura, + 20 Ser, + 20 Pro, + 20 Cys | 710  | DCS1171 | DCS1179 |
| CSM, -His, -Leu, -Trp, + 20 Ser, + 20 Pro, + 20 Cys | 680  | DCS1181 | DCS1189 |

## CSM QUADRUPLE DROP-OUT

| Formulation                 | mg/l | 10g     | 100g    |
|-----------------------------|------|---------|---------|
| CSM, -Ade, -Arg, -Leu, -Ura | 610  | DCS1191 | DCS1199 |
| CSM, -Ade, -Arg, -Met, -Tyr | 660  | DCS1201 | DCS1209 |
| CSM, -Ade, -His, -Leu, -Lys | 610  | DCS1211 | DCS1219 |
| CSM, -Ade, -His, -Leu, -Trp | 610  | DCS1221 | DCS1229 |
| CSM, -Ade, -His, -Leu, -Ura | 640  | DCS1231 | DCS1239 |
| CSM, -Ade, -His, -Met, -Ura | 690  | DCS1241 | DCS1249 |
| CSM, -Ade, -His, -Trp, -Ura | 690  | DCS1251 | DCS1259 |
| CSM, -Ade, -Leu, -Lys, -Trp | 580  | DCS1261 | DCS1269 |
| CSM, -Ade, -Leu, -Met, -Ura | 640  | DCS1271 | DCS1279 |
| CSM, -Ade, -Leu, -Trp, -Ura | 610  | DCS1281 | DCS1289 |
| CSM, -Ade, -Met, -Trp, -Ura | 690  | DCS1291 | DCS1299 |
| CSM, -Arg, -His, -Lys, -Ura | 650  | DCS1301 | DCS1309 |
| CSM, -Arg, -Leu, -Lys, -Ura | 570  | DCS1311 | DCS1319 |
| CSM, -Arg, -Leu, -Trp, -Ura | 570  | DCS1321 | DCS1329 |

| Formulation   | mg/l | 10g     | 100g    |
|---|------|---------|---------|
| CSM, -Arg, -Lys, -Trp, -Ura   | 620  | DCS1331 | DCS1339 |
| CSM, -Asp, -His, -Leu, -Trp   | 540  | DCS1341 | DCS1349 |
| CSM, -His, -Leu, -Lys, -Trp   | 570  | DCS1351 | DCS1359 |
| CSM, -His, -Leu, -Met, -Trp   | 600  | DCS1361 | DCS1369 |
| CSM, -His, -Leu, -Lys, -Ura   | 600  | DCS1371 | DCS1379 |
| CSM, -His, -Leu, -Trp, -Ura   | 600  | DCS1381 | DCS1389 |
| CSM, -His, -Lys, -Trp, -Ura   | 650  | DCS1391 | DCS1399 |
| CSM, -His, -Met, -Trp, -Ura   | 680  | DCS1401 | DCS1409 |
| CSM, -Leu, -Lys, -Trp, -Ura   | 570  | DCS1411 | DCS1419 |
| CSM, -Leu, -Met, -Trp, -Ura   | 600  | DCS1421 | DCS1429 |
| CSM, -Arg, -His, -Leu, -Trp, + 20 Cys, + 20 Pro, + 20 Ser, + 20 Ura | 650  | DCS1431 | DCS1439 |
| CSM, -His, -Leu, -Trp, -Ura, + 20 Cys, + 20 Pro, + 20 Ser           | 660  | DCS1441 | DCS1449 |

## CSM MULTIPLE DROP-OUT

| Formulation   | mg/l | 10g     | 100g    |
|---|------|---------|---------|
| CSM, -Ade, -Arg, -His, -Leu, -Met, -Thr, -Trp, -Ura       | 420  | DCS1451 | DCS1459 |
| CSM, -Arg, Asp, -Ile, -Met, -Phe, -Thr, -Tyr, -Ura, -Val  | 230  | DCS1461 | DCS1469 |
| CSM, -Ade, -His, -Leu, -Lys, -Met, -Thr, -Trp, -Tyr, -Ura | 370  | DCS1471 | DCS1479 |
| CSM, -Ade, -His, -Leu, -Lys, -Trp, -Tyr, -Ura             | 490  | DCS1481 | DCS1489 |
| CSM, -Ade, -His, -Leu, -Lys, -Trp, -Ura                   | 540  | DCS1491 | DCS1499 |
| CSM, -Ade, -His, -Leu, -Met, -Trp                         | 590  | DCS1501 | DCS1509 |
| CSM, -Ade, -His, -Leu, -Met, -Trp, -Ura                   | 570  | DCS1511 | DCS1519 |
| CSM, -Ade, -His, -Leu, -Trp, -Ura                         | 590  | DCS1521 | DCS1529 |
| CSM, -Ade, -His, -Lys, -Trp, -Ura                         | 640  | DCS1531 | DCS1539 |
| CSM, -Ade, -Leu, -Lys, -Met, -Trp, -Ura                   | 540  | DCS1541 | DCS1549 |
| CSM, -Arg, -His, -Lys, -Trp, -Ura                         | 600  | DCS1551 | DCS1559 |
| CSM, -His, -Leu, -Lys, -Met, -Thr, -Trp, -Ura             | 430  | DCS1561 | DCS1569 |
| CSM, -His, -Leu, -Lys, -Trp, -Ura                         | 550  | DCS1571 | DCS1579 |
| CSM, -His, -Leu, -Met, -Trp, -Ura                         | 580  | DCS1581 | DCS1589 |

Store all Drop-Out mixtures dry at room temperature



# HOPKINS MIXTURE, SYNTHETIC COMPLETE SUPPLEMENT MIXTURE, (SCSM)

## Hopkins Mixture

F. Spencer et al. Methods Companion to ME 5:173, (1993)

Hopkins Drop-Out mixtures are added to SD Broth or SD Agar.

SD media are available with glucose (dextrose), galactose, raffinose or a combination of galactose and raffinose as a carbon source.

## Synthetic Complete Supplement Mixture (SCSM)

formulations are available in 30 gram pack sizes. If you would like a larger pack size, please contact us by email or telephone.

Please enquire about custom made formulations.

## COMPLETE SCSM MIXTURE

### Size

30g

| Formula                | mg/l          |
|------------------------|---------------|
| Adenine                | 21.0          |
| L-Alanine              | 85.6          |
| L-Arginine HCl         | 85.6          |
| L-Asparagine           | 85.6          |
| Aspartic Acid          | 85.6          |
| L-Cysteine HCl         | 85.6          |
| L-Glutamine            | 85.6          |
| L-Glutamic Acid        | 85.6          |
| Glycine                | 85.6          |
| L-Histidine HCl        | 85.6          |
| myo-Inositol           | 85.6          |
| L-Isoleucine           | 85.6          |
| L-Leucine              | 173.4         |
| L-Lysine HCl           | 85.6          |
| L-Methionine           | 85.6          |
| para-Aminobenzoic Acid | 8.6           |
| L-Phenylalanine        | 85.6          |
| L-Proline              | 85.6          |
| L-Serine               | 85.6          |
| L-Threonine            | 85.6          |
| L-Tryptophan           | 85.6          |
| L-Tyrosine             | 85.6          |
| Uracil                 | 85.6          |
| L-Valine               | 85.6          |
| <b>Total</b>           | <b>2000.6</b> |



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## SCSM SINGLE DROP-OUTS

| Formulation | mg/l   | 30g     |
|-------------|--------|---------|
| SCSM, -Ade  | 1979.6 | DSCS021 |
| SCSM, -Cys  | 1915.0 | DSCS031 |
| SCSM, -His  | 1915.0 | DSCS041 |
| SCSM, -Leu  | 1827.2 | DSCS051 |
| SCSM, -Lys  | 1915.0 | DSCS061 |
| SCSM, -Met  | 1915.0 | DSCS071 |
| SCSM, -Pro  | 1915.0 | DSCS081 |
| SCSM, -Trp  | 1915.0 | DSCS091 |
| SCSM, -Ura  | 1915.0 | DSCS101 |

## SCSM DOUBLE DROP-OUTS

| Formulation           | mg/l   | 30g     |
|-----------------------|--------|---------|
| SCSM, -Ade, -Leu      | 1806.2 | DSCS111 |
| SCSM, -Ade, -Lys      | 1894.0 | DSCS121 |
| SCSM, -Ade, -Trp      | 1894.0 | DSCS131 |
| SCSM, -Cys, -Met      | 1829.4 | DSCS141 |
| SCSM, -His, -Leu      | 1741.6 | DSCS151 |
| SCSM, -His, -Ura      | 1829.4 | DSCS161 |
| SCSM, -Leu, -Trp      | 1741.6 | DSCS171 |
| SCSM, -Leu, -Ura      | 1741.6 | DSCS181 |
| SCSM, -Met, -Ura      | 1829.4 | DSCS191 |
| SCSM, -Trp, -Ura      | 1829.4 | DSCS201 |
| SCSM, -Ura, -Inositol | 1829.4 | DSCS211 |

SCSM TRIPLE  
DROP-OUTS

| Formulation            | mg/l   | 30g     |
|------------------------|--------|---------|
| SCSM, -Cys, -His, -Met | 1743.8 | DSCS221 |
| SCSM, -Cys, -Met, -Ura | 1743.8 | DSCS231 |
| SCSM, -His, -Leu, -Trp | 1656.0 | DSCS241 |
| SCSM, -His, -Leu, -Ura | 1656.0 | DSCS251 |
| SCSM, -His, -Trp, -Ura | 1743.8 | DSCS261 |

SCSM QUADRUPLE  
DROP-OUTS

| Formulation                  | mg/l   | 30g     |
|------------------------------|--------|---------|
| SCSM, -Ade, -His, -Leu, -Trp | 1635.0 | DSCS271 |
| SCSM, -His, -Leu, -Trp, -Ura | 1570.4 | DSCS281 |

## SCSM MULTIPLE DROP-OUTS

| Formulation  | mg/l   | 30g     |
|--|--------|---------|
| SCSM, -Ade, -His, -Leu, -Lys, -Trp, -Ura             | 1463.8 | DSCS291 |
| SCSM, -Cys, -Leu, -Lys, -Met, -Trp, -Ura             | 1399.2 | DSCS301 |
| SCSM, -Ade, -Arg, -His, -Leu, -Met, -Thr, -Trp, -Ura | 1292.6 | DSCS311 |

Store all Drop-Out mixtures dry at room temperature

# KAISER MIXTURE, SYNTHETIC COMPLETE DROP-OUT MIXTURE, (SC)

Ref.: Kaiser, C. et al., Methods in Yeast Genetics, Cold Spring harbour (New York : 1994).

Drop-Out supplements are based upon a standard mixture of Amino Acids, Vitamins and other components to supplement encountered auxotrophies. In each of the Drop-Out mixtures provided by Formedium™ each of these components is provided except one to five supplements of interest, i.e. the “dropped out” supplements.

Drop-Out mixtures are often used in combination with

Yeast Nitrogen Base without Amino Acids to test for auxotrophies and transformants.

Each of the Drop-Out mixtures, without one or more essential nutrients, is useful for the selection of auxotrophic requirements and transformants.

Synthetic Complete Amino Acid supplements are available in 20 gram and 100 gram pack sizes. Please contact us if you would like to order or get a quotation for a larger pack size.

## COMPLETE SC MIXTURE

### Size

20g  
100g

| Formula                | mg/l        |
|------------------------|-------------|
| Adenine                | 18          |
| L-Alanine              | 76          |
| L-Arginine HCl         | 76          |
| L-Asparagine           | 76          |
| Aspartic Acid          | 76          |
| L-Cysteine             | 76          |
| L-Glutamine            | 76          |
| L-Glutamic Acid        | 76          |
| Glycine                | 76          |
| L-Histidine            | 76          |
| myo-Inositol           | 76          |
| L-Isoleucine           | 76          |
| L-Leucine              | 380         |
| L-Lysine               | 76          |
| L-Methionine           | 76          |
| para-Aminobenzoic Acid | 8           |
| L-Phenylalanine        | 76          |
| L-Proline              | 76          |
| L-Serine               | 76          |
| L-Threonine            | 76          |
| L-Tryptophan           | 76          |
| L-Tyrosine             | 76          |
| Uracil                 | 76          |
| L-Valine               | 76          |
| <b>Total</b>           | <b>2002</b> |



GHS07 Skin & Eye Irritation

## COMPLETE SC MIXTURE

| Formulation | mg/l | 20g      | 100g      |
|-------------|------|----------|-----------|
| SC          | 2002 | DSCCK012 | DSCCK1000 |

## SC SINGLE DROP-OUTS

| Formulation | mg/l | 20g      | 100g      |
|-------------|------|----------|-----------|
| SC, -Ade    | 1984 | DSCCK022 | DSCCK1001 |
| SC, -Cys    | 1926 | DSCCK032 | DSCCK1002 |
| SC, -His    | 1926 | DSCCK042 | DSCCK1003 |
| SC, -Leu    | 1622 | DSCCK052 | DSCCK1004 |
| SC, -Lys    | 1926 | DSCCK062 | DSCCK1005 |
| SC, -Met    | 1926 | DSCCK072 | DSCCK1006 |
| SC, -Pro    | 1926 | DSCCK082 | DSCCK1007 |
| SC, -Trp    | 1926 | DSCCK092 | DSCCK1008 |
| SC, -Ura    | 1926 | DSCCK102 | DSCCK1009 |

## SC DOUBLE DROP-OUTS

| Formulation         | mg/l | 20g      | 100g      |
|---------------------|------|----------|-----------|
| SC, -Ade, -Leu      | 1604 | DSCCK112 | DSCCK1010 |
| SC, -Ade, -Lys      | 1908 | DSCCK122 | DSCCK1011 |
| SC, -Ade, -Trp      | 1908 | DSCCK132 | DSCCK1012 |
| SC, -Cys, -Met      | 1850 | DSCCK142 | DSCCK1013 |
| SC, -His, -Leu      | 1546 | DSCCK152 | DSCCK1014 |
| SC, -His, -Ura      | 1850 | DSCCK162 | DSCCK1015 |
| SC, -Leu, -Trp      | 1546 | DSCCK172 | DSCCK1016 |
| SC, -Leu, -Ura      | 1546 | DSCCK182 | DSCCK1017 |
| SC, -Met, -Ura      | 1850 | DSCCK192 | DSCCK1018 |
| SC, -Trp, -Ura      | 1850 | DSCCK202 | DSCCK1019 |
| SC, -Ura, -Inositol | 1850 | DSCCK212 | DSCCK1020 |

## SC TRIPLE DROP-OUTS

| Formulation          | mg/l | 20g      | 100g      |
|----------------------|------|----------|-----------|
| SC, -Cys, -His, -Met | 1774 | DSCCK222 | DSCCK1001 |
| SC, -Cys, -Met, -Ura | 1774 | DSCCK232 | DSCCK1422 |
| SC, -His, -Leu, -Trp | 1470 | DSCCK242 | DSCCK1023 |
| SC, -His, -Leu, -Ura | 1470 | DSCCK252 | DSCCK1024 |
| SC, -His, -Trp, -Ura | 1774 | DSCCK262 | DSCCK1025 |
| SC, -Leu, -Trp, -Ura | 1470 | DSCCK265 | DSCCK1035 |

## SC QUADRUPLE DROP-OUTS

| Formulation                | mg/l | 20g      | 100g      |
|----------------------------|------|----------|-----------|
| SC, -Ade, -His, -Leu, -Trp | 1452 | DSCCK272 | DSCCK1026 |
| SC, -His, -Leu, -Trp, -Ura | 1394 | DSCCK282 | DSCCK1027 |

## SC MULTIPLE DROP-OUTS

| Formulation  | mg/l | 20g      | 100g      |
|--|------|----------|-----------|
| SC, -Ade, -His, -Leu, -Lys, -Trp, -Ura             | 1300 | DSCCK292 | DSCCK1028 |
| SC, -Cys, -Leu, -Lys, -Met, -Trp, -Ura             | 1242 | DSCCK302 | DSCCK1029 |
| SC, -Ade, -Arg, -His, -Leu, -Met, -Thr, -Trp, -Ura | 1148 | DSCCK312 | DSCCK1030 |

Store all Drop-Out mixtures dry at room temperature

## BRENT SUPPLEMENT MIXTURE, (BSM)

Brent Supplement Mixture (BSM) is used in combination with the Interaction Trap two-hybrid system.

BSM Drop-Out mixtures are added to SD Broth or SD Agar.

SD media are available with glucose (dextrose), galactose, raffinose, or a combination of galactose and raffinose as a carbon source.

Brent Supplement Mixture formulations are available in 25 gram pack sizes. If you would like a quotation for a larger pack size, please contact us.

Please enquire about custom made formulations.

## COMPLETE BSM MIXTURE

### Size

25g

| Formula         | mg/l        |
|-----------------|-------------|
| Adenine         | 40          |
| L-Arginine HCl  | 20          |
| L-Aspartic Acid | 100         |
| Glutamic Acid   | 100         |
| L-Histidine     | 20          |
| L-Isoleucine    | 300         |
| L-Leucine       | 60          |
| L-Lysine HCl    | 30          |
| L-Methionine    | 20          |
| L-Phenylalanine | 50          |
| L-Serine        | 375         |
| L-Threonine     | 200         |
| L-Tryptophan    | 40          |
| L-Tyrosine      | 30          |
| Uracil          | 20          |
| Valine          | 150         |
| <b>Total</b>    | <b>1555</b> |



GHS07 Skin & Eye Irritation

## BSM SINGLE DROP-OUTS

| Formulation | mg/l | 30g     |
|-------------|------|---------|
| BSM, -His   | 1535 | DBSM022 |
| BSM, -Trp   | 1515 | DBSM032 |
| BSM, -Ura   | 1535 | DBSM042 |

## BSM DOUBLE DROP-OUTS

| Formulation     | mg/l | 30g     |
|-----------------|------|---------|
| BSM, -His, -Ura | 1515 | DBSM052 |
| BSM, -Leu, -Trp | 1455 | DBSM062 |
| BSM, -Trp, -Ura | 1495 | DBSM072 |

## BSM MULTIPLE DROP-OUTS

| Formulation                 | mg/l | 30g     |
|-----------------------------|------|---------|
| BSM, His, -Leu, -Ura        | 1455 | DBSM082 |
| BSM, -His, -Trp, -Ura       | 1475 | DBSM092 |
| BSM, -Leu, -Trp, -Ura       | 1435 | DBSM102 |
| BSM, -his, -Leu, -Trp, -Ura | 1415 | DBSM112 |

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## HOLLENBERG SUPPLEMENT MIXTURE, (HSM)

Hollenberg Supplement Mixture (HSM) is used for this selection in the two hybrid system of Field as modified by Hollenberg.

HSM Drop-Out mixtures are added to SD media with succinate as the carbon source.

Hollenberg Supplement Mixture formulations are available in 50 gram pack sizes. If you would like a quotation for a larger pack size, please contact us.

Please enquire about custom made formulations.

Store all Drop-Out mixtures dry at room temperature

## COMPLETE HSM MIXTURE

### Size

50g

| Formula         | mg/l        |
|-----------------|-------------|
| Adenine         | 100         |
| L-Arginine      | 100         |
| L-Aspartic Acid | 50          |
| Cysteine        | 100         |
| L-Histidine     | 50          |
| L-Isoleucine    | 50          |
| L-Leucine       | 100         |
| L-Lysine        | 100         |
| L-Methionine    | 50          |
| L-Phenylalanine | 50          |
| L-proline       | 50          |
| L-Serine        | 50          |
| L-Threonine     | 100         |
| L-Tryptophan    | 100         |
| L-Tyrosine      | 50          |
| Uracil          | 100         |
| Valine          | 50          |
| <b>Total</b>    | <b>1250</b> |



GHS07 Skin & Eye Irritation

## HSM SINGLE DROP-OUTS

| Formulation | mg/l | 50g     |
|-------------|------|---------|
| HSM, -His   | 1200 | DHSM015 |
| HSM,-Leu    | 1150 | DHSM025 |
| HSM, -Lys   | 1150 | DHSM035 |
| HSM, -Trp   | 1150 | DHSM045 |
| HSM, -Ura   | 1150 | DHSM055 |

## HSM DOUBLE DROP-OUTS

| Formulation     | mg/l | 50g     |
|-----------------|------|---------|
| HSM, -Leu, -Trp | 1050 | DHSM065 |
| HSM, -Trp, -Ura | 1050 | DHSM075 |
| HSM, -Leu, -Ura | 1050 | DHSM085 |

## HSM TRIPLE DROP-OUTS

| Formulation           | mg/l | 50g     |
|-----------------------|------|---------|
| HSM, -His, -Leu, -Trp | 1000 | DHSM095 |
| HSM, -His, -Leu, -Ura | 1000 | DHSM105 |
| HSM, -His, -Lys, -Ura | 1000 | DHSM115 |
| HSM, -His, -Trp, -Ura | 1000 | DHSM125 |
| HSM, -Met, -Trp, -Ura | 1000 | DHSM135 |
| HSM, -Leu, -Trp, -Ura | 950  | DHSM145 |

## HSM MULTIPLE DROP-OUTS

| Formulation                                   | mg/l | 50g     |
|---|------|---------|
| HSM, -His, -Leu, -Trp, -Ura                   | 900  | DHSM155 |
| HSM, -His, -Lys, -Trp, -Ura                   | 900  | DHSM165 |
| HSM, -His, -Leu,-Lys, -Trp,-Ura               | 900  | DHSM175 |
| HSM, -Ade, -His, -Leu, -Lys, -Met, -Trp, -Ura | 900  | DHSM185 |

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