## List of ingredients

0watersimple1Glucosesimple2CaCO3simple3K2HPO4simple4MgSO4 x 7 H2Osimple5NaClsimple6L-Asparaginesimple7Glycerolsimple8Yeast extractcomplex9Starchcomplex10Beef extractcomplex11N-Z aminecomplex12Peptonecomplex13Malt extractcomplex14Oatmealcomplex	COMPOUND_ID	COMPOUND	COMPOUND_TYPE
2 CaCO3 simple 3 K2HPO4 simple 4 MgSO4 x 7 H2O simple 5 NaCl simple 6 L-Asparagine simple 7 Glycerol simple 8 Yeast extract complex 9 Starch complex 10 Beef extract complex 11 N-Z amine complex 12 Peptone complex 13 Malt extract complex	0	water	simple
<ul> <li>3 K2HPO4 simple</li> <li>4 MgSO4 x 7 H2O simple</li> <li>5 NaCl simple</li> <li>6 L-Asparagine simple</li> <li>7 Glycerol simple</li> <li>8 Yeast extract complex</li> <li>9 Starch complex</li> <li>10 Beef extract complex</li> <li>11 N-Z amine complex</li> <li>12 Peptone complex</li> <li>13 Malt extract complex</li> </ul>	1	Glucose	simple
MgSO4 x 7 H2O simple  NaCl simple  L-Asparagine simple  Glycerol simple  Yeast extract complex  Starch complex  Beef extract complex  N-Z amine complex  Peptone complex  Malt extract complex	2	CaCO3	simple
5 NaCl simple 6 L-Asparagine simple 7 Glycerol simple 8 Yeast extract complex 9 Starch complex 10 Beef extract complex 11 N-Z amine complex 12 Peptone complex 13 Malt extract complex	3	K2HPO4	simple
6 L-Asparagine simple 7 Glycerol simple 8 Yeast extract complex 9 Starch complex 10 Beef extract complex 11 N-Z amine complex 12 Peptone complex 13 Malt extract complex	4	MgSO4 x 7 H2O	simple
7 Glycerol simple 8 Yeast extract complex 9 Starch complex 10 Beef extract complex 11 N-Z amine complex 12 Peptone complex 13 Malt extract complex	5	NaCl	simple
8 Yeast extract complex 9 Starch complex 10 Beef extract complex 11 N-Z amine complex 12 Peptone complex 13 Malt extract complex	6	L-Asparagine	simple
9 Starch complex 10 Beef extract complex 11 N-Z amine complex 12 Peptone complex 13 Malt extract complex	7	Glycerol	simple
10 Beef extract complex 11 N-Z amine complex 12 Peptone complex 13 Malt extract complex	8	Yeast extract	complex
11 N-Z amine complex 12 Peptone complex 13 Malt extract complex	9	Starch	complex
12 Peptone complex 13 Malt extract complex	10	Beef extract	complex
13 Malt extract complex	11	N-Z amine	complex
·	12	Peptone	complex
14 Oatmeal complex	13	Malt extract	complex
	14	Oatmeal	complex

## **Formulations**

Each media formulation will contain a mixture of up to 6 ingredients and can be defined by a six-number identifier defined by their component ids. For example, ISP2 media can be defined by the following 0-1-2-8-13-0. Water here is only as a substitute place holder because in others there may be some component in its place.

	0	1		2	8	3	13		0
water		Glucose	CaCO3	•	Yeast		Malt	water	·
					extract		extract		

The combinations are made by combining up to 3 from each combining category (simple and complex) and further combining each category in all combinations.

## Assembly

Assembly of formulations can be done in 96 deep-well (1mL working volume) or 384 (80 $\mu$ L). Assembling into 96-well plates gives 42 plates. Whereas it can be assembled into 11 384-well plates, however, the culture volume and it's subsequent extraction might get difficult.

... example plates in the following pages...