MP Biomedicals, LLC
QBioGene

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Certificate of Analysis

Product: CSM-Met-Ura
Catalog No.: 4520-812; 4520-822
Lot No.: 17658

FORMULATION:

Drop-Out	Supplements	mg/L
Adenine		10
L-Arginine	HCl	50
L-Aspartic	Acid	80
L-Histidine	HCl	20
L-Isoleucine		50
L-Leucine		100
L-Lysine HCl		50
L-Methionine		0
L-Phenylalanine		50
L-Threonine		100
L-Tryptophan		50
L-Tyrosine		50
Uracil		0
L-Valine		140
Total		**720**

Recommended Use:
Add 0.72g of CSM-Met-Ura to each liter of DOB or DOBA and autoclave at 121°C for 25 minutes for complete synthetic defined single drop-out medium for *S.cerevisiae.*

Storage:
Store CSM-Met-Ura powder at ambient temperature (15-30°C). CSM powder is hygroscopic, therefore minimize exposure to air to prolong storage of powder mixture. Store sterile agar medium at 4°C. And liquid medium at 15-30°C in subdued light.

Shelf Life: Storage life in closed container: 4 years from the date the powder was made.

Quality Assurance Information

All MP Biomedicals products are thoroughly tested to ensure reliable results in the laboratory. The following paragraphs describe BIO 101's preparation and quality control procedures.

Media Preparation:
Reagents are tested and chosen for their ability to promote optimum growth of yeast strains when combined in the DOB or DOBA with CSM-Met-Ura formula. DOB (Drop Out Base) is 1.7g Yeast Nitrogen Base, 5g Ammonium Sulfate, 20g Dextrose per liter. DOBA is DOB with 17% agar. Chosen reagents are combined in the proper proportions according to the formulation listed in the certificate of analysis and milled to a powder which thoroughly blends the reagents for uniform distribution. A sample of the milled and blended formulation was used to prepare liquid plate medium by adding 43.7g DOBA powder and 0.72g of CSM-Met-Ura to a liter of purified water. The combinations were mixed by hand for about 1 minute to dissolve the dextrose and autoclaved at 121°C for 25 minutes. After cooling to 50°C plates were poured.

Quality Control Assay:
DOB with CSM-Met-Ura was visually inspected after autoclaving for complete dissolution of components. The pH of the medium was tested to insure that the proper specification was attained. Acceptable pH range is 4.0 - 4.8.

DOBA with CSM-Met-Ura was visually inspected after autoclaving for complete dissolution of components. The pH of the medium was tested to insure that the proper specification was attained. Acceptable pH range is 5.0 - 5.8.

The CSM was tested by spotting 16 strains of yeast that have distinct auxotrophic phenotypes onto the plates and incubating at 30°C. On days 2, 3 and 4 plates were examined for the pattern of growth. All strains grew on DOBA with CSM plates, i.e., with complete supplement mixture with no "drop-outs".

NUMBER AND PHENOTYPE OF CONTROL STRAINS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ADE	-	-	-	+	-	+	+	-	+	-	+	+	+	-	+	+
ARG	+	+	-	+	+	+	+	+	+	+	+	-	+	+	-	+
ASP	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
HIS	+	-	+	+	+	+	+	-	+	+	+	+	+	+	+	+
LEU	+	+	+	+	+	+	+	-	+	-	+	+	-	-	-	+
LYS	+	+	-	+	+	+	+	-	+	-	-	+	+	-	-	+
MET	+	+	-	-	+	-	+	+	+	+	+	+	+	+	-	+
THR	+	+	+	-	+	+	+	+	+	+	+	+	+	-	+	+
TRP	+	+	-	+	+	+	+	-	-	-	+	+	+	-	+	+
TYR	-	+	+	+	+	+	+	+	+	+	+	+	+	-	-	+
URA	+	+	-	+	+	+	-	+	+	-	+	+	+	-	-	+

Results of Quality Control Assay:
CSM-Met-Ura liquid solution was determined to be **clear** and **particulate free**. pH of solution was found to be **4.24 @ 25C (w/DOB)**
Growth Studies: All strains grew except: 3, 4, 6, 7, 10, 14, 15.

Conclusions: This lot of CSM-Met-Ura is released for product sales.

Christina Marotta

01/07/2013 - Christina Marotta
QBioGene/MP Biomedicals, LLC
Technical Director

MSDS available online at www.mpbio.com