MP Biomedicals, LLC
QBioGene

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Certificate of Analysis

Product: CSM-Trp-Ura
Catalog No.: 4520-5X2; 4520-512; 4520-522
Lot No.: 103423

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			20
L-Phenylalanine			50
L-Threonine			100
L-Tryptophan			0
L-Tyrosine			50
Uracil			0
L-Valine			140
Total			**720**

Recommended Use:
Add 0.72 g of CSM-Trp-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-Trp-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 2-8°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 media 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-Trp-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 medium (or plate medium) by adding 2.7g DOB (or 4.37g DOBA) powder and 0.072 g of CSM-Trp-Ura to a 100 mL 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 of DOBA with CSM-Trp-Ura were poured.

Quality Control Assay:
DOB (or DOBA) with CSM-Trp-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 for DOB with CSM-Trp-Ura, report result for DOBA with CSM-Trp-Ura. DOB (or DOBA) with CSM-Trp-Ura was tested by *S.cerevisiae*cell growth at 30°C for approximately 48 hours.

Results of Quality Control Assay:
DOB (or DOBA) with CSM-Trp-Ura liquid solution was determined to **be clear, pale yellow solution**. pH of solution of DOB with CSM-Trp-Ura was found to be **4.08@25.0°C**, pH of solution of DOBA with CSM-Trp-Ura was found to be **5.62@25.0°C**. The cell growth of DOB (or DOBA) with CSM-Trp-Ura passed the test.

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

06/19/2017 - John Huang, PhD
QBioGene/MP Biomedicals, LLC
Quality Control Manager

MSDS available online at www.mpbio.com