Product Information

Trace Elements Ready-made Solution

For bacterial culture, 100x

MBD0056

Product Description

Minerals and vitamins are broadly used as growth media to support the growth of a variety of different bacteria. The growth media mimics the natural environment of the bacteria thus providing an optimal setting for high throughput cultures. Trace elements ready-made solution, MBD0056, comprises vital minerals to support critical bacterial development. The solution is based on Wolin and Wolfe's recipe, which is especially suitable for culturing anaerobic bacteria of the human microbiome.[1-4]

Product Benefits

- 0.2 µm filtered
- Saves time in preparation of media
- Improved accuracy: composition and concentrations are analyzed and established by inductively coupled plasma (ICP)
- Ready-made liquid mixture.
- Decreases exposure to chemical and toxic risks associated with the powder form of the trace elements

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practice.

Composition

50 mL Trace Elements Solution	**mg/L**
EDTA	570
$CuSO_4 \cdot 5H_2O$	10
$AlK(SO_4)_2 \cdot 12H_2O$	20
H_3BO_3	10
$Na_2MoO_4 \cdot 2H_2O$	10
Na_2SeO_3	1
$Na_2WO_4 \cdot 2H_2O$	10
$NiCl_2 \cdot 6H_2O$	20
$MgSO_4 \cdot 7H_2O$	3000
$MnSO_4 \cdot H2O$	500
NaCl	1000
$NH_4Fe(SO_4)_2 \cdot 12H_2O$	170
$Co(NO_3)_2 \cdot 6H_2O$	100
$CaCl_2 \cdot 2H_2O$	100
$ZnSO_4 \cdot 7H_2O$	100

Storage/Stability

Store this product at 2-8 °C.

Preparation Instructions

Add to pre-sterilized and cooled growth media. Concentration 100x.

References

1. Balch, W. E., et al. "Methanogens: reevaluation of a unique biological group." *Microbiological reviews* 43.2 (1979): 260-296.
2. Wolin, E. A., R. S. Wolfe, and M. J. Wolin. "Viologen dye inhibition of methane formation by Methanobacillus omelianskii." *Journal of Bacteriology* 87.5 (1964): 993-998.
3. Goodman, Andrew L., et al. "Extensive personal human gut microbiota culture collections characterized and manipulated in gnotobiotic mice." *Proceedings of the National Academy of Sciences* 108.15 (2011): 6252-6257.
4. Ito, Tamaki, et al. "Conventional culture methods with commercially available media unveil the presence of novel culturable bacteria." *Gut Microbes* 10.1 (2019): 77-91.

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