

Water

Cell and Tissue Culture Grade

RO filtered
Endotoxin filtered
Cell culture tested

Catalog Number **LS 016-01**
Storage Temperature 15~30°C

Product Description

H₂O, Water, Hydrogen oxide
FW 18.02
H 11.19%, O 88.81%
(Liq.) Temperature of maximal density; 3.98°C
d^{3.98} 1.000000 g/ml (0.999972 g/cc)
d₄²⁵ 0.997 g/cc
d⁰ (ice) 0.917 g/cc
Melting point 0°C, Boiling point 100°C
One liter saturated vapor weighs 0.5974 g at 100°C at 760 mm
Critical Temperature 374.2°C, Critical Pressure 218 atm
Specific Heat (liq; 14°) 1.000 cal/g°C
Latent Heat of Fusion 1.436 kcal/mole
Latent Heat of Vaporization 9.717 kcal/mole
Water is the most universal solvent and is also the most common component in natural cells and tissues.

LS 016-01 is the cell/tissue culture grade pure water prepared through reverse osmosis (RO) filtration, 2 steps of endotoxin removal filtration, and final ultra pure water system resulting in the water resistance of max. 18 MΩ. By these procedures, impurities are removed completely. Hence, the experimental errors due to lab water can be reduced and the high reproducibility can be provided. Cell/Tissue Culture Grade Pure Water may be used for dissolving powder media and reagents, and other various cell/tissue culture experiments.

Storage/Stability

Cell/Tissue Culture Grade Pure Water should be stored at 15~30°C. Deterioration of the solution may be recognized by (1) precipitate or particulate matter throughout the solution, (2) cloudy appearance, (3) color change, and/or (4) pH change. Product label bears expiration date.

Biological Performance Characteristics

The growth-promoting capacity of Cell/Tissue Culture Grade Pure Water is tested in a medium containing 10% FBS using an appropriate cell line(s). Growth rates are examined through three subculture generations and compared with parallel cultures grown in standardized control medium. Cells are counted and growth is plotted as a logarithmic function of time in culture, and seeding efficiency, doubling time, and the final cell density are determined. During the testing period cultures are examined microscopically for a typical morphology and evidence of cytotoxicity.

Precautions

For *In Vitro* Use Only

Product Profile	LS 016-01
Appearance	Clear colorless solution
pH at RT	5.0 ~ 7.0
Endotoxin	≤ 1.0 EU/ml
Sterility	Sterilized by 0.2 μm filtration system. Sterility tests are performed in accordance with protocols described in USP.

References

The Merck Index; An Encyclopedia of Chemicals and Drugs, 12,10175, Merck & CO., Inc.
USP 24 <Official Monographs> Water for Injection, 1752.
USP 24 <Official Monographs> Sterile Purified Water, 1753.
USP 24 <71> Methods for Sterility Test, 1818.

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제품설명

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물은 알려진 물질 중에서 가장 보편적인 용매로 사용되는 물질이며 살아 있는 세포와 조직을 구성하는 성분 중 가장 많이 함유되어 있는 물질이다.

LS 016-01은 세포/조직배양용 초순수 물로서 역삼투 (reverse osmosis, RO) 여과공정, 2 단계의 endotoxin 여과공정 거쳐 최종적으로 max. 18 MΩ의 전도도를 가진다. 이러한 공정을 거친 **LS 016-01**은 세포배양에 악영향을 미칠 수 있는 모든 요소들이 제거되어 세포배양에 사용되는 각종 배지 및 용액을 제조하는 데 적합하며, 물로 인하여 발생할 수 있는 실험상의 오류를 방지할 수 있다.

보관 및 안정성

Cell/Tissue Culture Grade Pure Water는 15~30°C에서 보관하여야 한다. 액상 시약의 변성은 (1) 침전물 또는 부유물, (2) 용액의 탁해짐, (3) 색의 변화, 그리고 (4) pH의 변화 등으로 나타날 수 있다. 유효기간은 제품 라벨에 표시되어있다.

생물학적 특성

Cell/Tissue Culture Grade Pure Water의 세포 배양 유지능력은 10%의 FBS를 포함하는 액상 배지에 적합한 세포주를 배양하여 시험한다. 성장 속도는 세 번의 계대 배양을 통하여 측정하고 표준품에서 배양한 것과 비교한다. 시간에 따른 세포수의 변화를 측정하고 seeding efficiency, doubling time, 그리고 최종 세포농도를 결정한다. 시험을 하면서 현미경으로 세포의 형태 변화와 cytotoxicity의 현상이 나타나는지 관찰한다.

주의

For In Vitro Use Only

Product Profile		LS 016-01
Appearance	Clear colorless solution	
pH at RT	5.0 ~ 7.0	
Endotoxin	≤ 1.0 EU/ml	
Cell culture test	Pass	
Sterility	Sterilized by 0.2 μm filtration system. Sterility tests are performed in accordance with protocols described in USP.	

참고문헌

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