1-Thioglycerol
Cell Culture Tested

Product Number M 6145
Storage Temperature 2-8 °C

Product Description
Molecular Formula: C₃H₈O₂S
Molecular Weight: 108.2
CAS Number: 96-27-5
Density: 1.245 g/ml
Molarity: 11.5 M (calculated based on density and molecular weight)
Boiling Point: 100-101 °C
Synonyms: α-monothioglycerol, thioglycerin, 3-mercapto-1,2-propanediol

This product is cell culture tested (0.003 mg/l) and is suitable for cell culture applications.

1-Thioglycerol is a reagent that is used in analytical chemistry, materials science, and cell culture research. In mass spectrometry (MS), it is notably used as a matrix substrate in FAB (fast atom bombardment) MS methods. Compounds that have been investigated by FAB-MS using 1-thioglycerol as the FAB-MS matrix include lipids, gangliosides, benzo[a]pyrenes, and iron-siderophore complexes.

In materials and biomaterials science, 1-thioglycerol has been used in the preparation of thiol modified gold surfaces for human immunoglobulin binding and of water soluble luminescent CdS quantum dots. Cell culture studies of embryonic cortical and hippocampal neurons, mouse bone marrow mast cell lines, and human B cell lines have utilized 1-thioglycerol as a component of the culture medium to stimulate proliferation.

Precautions and Disclaimer
For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions
This product is miscible in ethanol (1 ml/ml, 50%, v/v), yielding a clear, colorless solution. It is also miscible in water (0.1 M).

References
2. The Merck Index, 12th ed., Entry# 9471.
13. Hultner, L., et al., Thiol-sensitive mast cell lines derived from mouse bone marrow respond to a mast cell growth-enhancing activity different from both IL-3 and IL-4. J. Immunol., 142(10), 3440-3446 (1989).
