
Product Data Sheet

Product Name: Phenol Red sodium salt (Phenolsulfonephthalein sodium salt)

Cat. No.: GC30235

Chemical Properties

Cas. No. 34487-61-1

SMILES O=S1(OC(C2=CC=C([O-])C=C2)(C3=CC=C(O)C=C3)C4=CC=CC=C41)=O.[Na+]

Formula $C_{19}H_{13}NaO_5S$ M.Wt 376.36

Solubility Water : ≥ 100 mg/mL (265.70 mM) Storage Store at 4°C, protect from light

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

Protocol

Cell experiment:

Phenol red is dissolved in 0.1% ethanol. To determine the effect of phenol red on cell proliferation, MCF-7 cells grown for 1 week before experiments in phenol red-free MEM supplemented are harvested and seeded into T-25 flasks (ca. 1.5×10^5 cells per flask). The following day, cells from three flasks are harvested and counted with a Coulter Counter. Then the medium is changed to phenol red- and insulin-free MEM, which contains various concentrations of dextran-coated charcoal-treated calf serum, phenol red (0-300 μ M), tamoxifen, hydroxytamoxifen, estradiol, or ethanol vehicle (0.1%), and cell number is monitored as a function of time[1]. Phenol Red sodium salt is dissolved in distilled water as a 10 g/L stock solution[2].

Caution: Product has not been fully validated for medical applications. For research use only.

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References:

[1]. Berthois Y, et al. Phenol red in tissue culture media is a weak estrogen: implications concerning the study of estrogen-responsive cells in culture. Proc Natl Acad Sci U S A. 1986

Apr;83(8):2496-500.

[2]. Pick E, et al. A simple colorimetric method for the measurement of hydrogen peroxide produced by cells in culture. J

Immunol Methods. 1980;38(1-2):161-70.

Background

Phenol Red sodium salt (Phenolsulfonephthalein sodium salt) is used ubiquitously as a pH indicator in tissue culture media ranging from 6.8 (yellow) to 8.2 (red). Phenol red binds to the estrogen receptor of MCF-7 human breast cancer cells.

[1] Y Berthois, et al. Proc Natl Acad Sci U S A. 1986 Apr;83(8):2496-500.

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