

## Ionomycin calcium salt 离子霉素

### Chemical Properties

Cat. No. 5608212

Cas 号 56092-82-1

Chemical Name calcium (4S,6S,8S,10E,12R,14R,16E,18S,19S,20R,21S)-19,21-dihydroxy-22-((2R,2'R,5R,5'S)-5'-((R)-1-hydroxyethyl)-2,5'-dimethyloctahydro-[2,2'-bifuran]-5-yl)-4,6,8,12,14,18,20-heptamethyl-11-oxido-9-oxodocosa-10,16-dienoate

Canonical SMILES O[C@H](C)[C@@]1(C)O[C@H](CC1)[C@]2(C)O[C@@H](C[C@@H]([C@@H](C)[C@H]([C@H]/C=C/C[C@@H](C)C[C@@H](C)/C([O-])=C\C([C@@H](C)C[C@@H](C)C[C@@H](C)CCC([O-])=O)=O)C)O)O)CC2.[Ca+2]

Formula C<sub>41</sub>H<sub>70</sub>O<sub>9</sub>.Ca

M.Wt

747.08

Solubility 20mg/mL in enathol, 1.6mg/mL in DMSO, 1.2mg/mL in DMF

Storage

Desiccate at -20°C

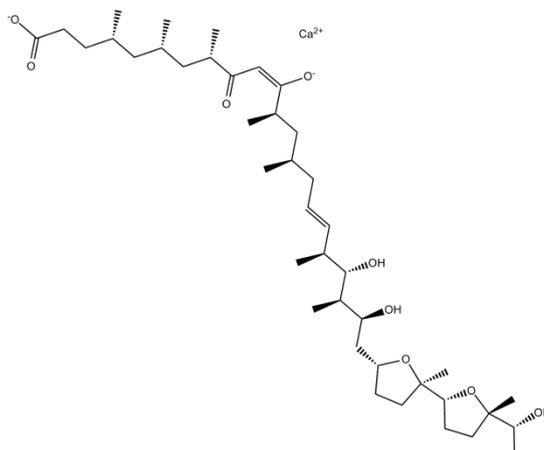
General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.

Shipping

Condition

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

Structure



## Background

Ionomycin is a selective calcium ionophore derived from *S. conglobatus* that mobilizes intracellular calcium stores.[1] It is used as a research tool to raise the intracellular level of calcium, to study calcium transport across

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

biological membranes, and to stimulate the intracellular production of cytokines.[2],[3],[4] This compound is supplied as a calcium salt for more stable storage. It is also available as a solution in ethanol.

### Reference:

- [1]. Liu, W.C., Slusarchyk, D.S., Astle, G., et al. Ionomycin, a new polyether antibiotic. *Journal of Antibiotics* 31(9), 815-819 (1978).
- [2]. Morgan, A.J., and Jacob, R. Ionomycin enhances  $Ca^{2+}$  influx by stimulating store-regulated. *Biochemistry Journal* 300, 665-672 (1994).
- [3]. Yoshida, S., and Plant, S. Mechanism of release of  $Ca^{2+}$  from intracellular stores in response to ionomycin in oocytes of the frog *Xenopus laevis*. *Journal of Physiology* 458, 307-318 (1992).
- [4]. Caraher, E.M., Parenteau, M., Gruber, H., et al. Flow cytometric analysis of intracellular IFN- $\gamma$ , IL-4 and IL-10 in CD3+4+ T-cells from rat spleen. *Journal of Immunological Methods* 244, 29-40 (2000).