

Product Data Sheet

Product Name: TS 155-2

Cat. No.: GC17423

Chemical Properties

Cas. No. 1314486-37-7

Chemical Name 2E-butenedioic acid-1-[(2R,4R,5S,6R)-tetrahydro-2-hydroxy-2-[(1S,2R,3S)-2-hydroxy-3-[(2R,3S,4E,6E,9S,10S,11R,12E,14E)-10-hydroxy-3-methoxy-7,9,11,13,15-pentamethyl-16-oxooxacyclohexadeca-4,6,12,14-tetraen-2-yl]-1-methylbutyl]-5-methyl-6-(1-methylethyl)-2H

SMILES C[C@H]([C@]1(O)O[C@H](C(C)C)[C@@H](C)[C@H](OC/C=C/C(O)=O)=O)C1)[C@H](O)[C@@H]([C@](OC/C(C)=C/C(C)=C/[C@@H](C)[C@@H](O)[C@@H](C)C2)=O)([H])[C@H](/C=C/C=C2\C)OC)C

Formula C₃₉H₆₀O₁₁

M.Wt 704.9

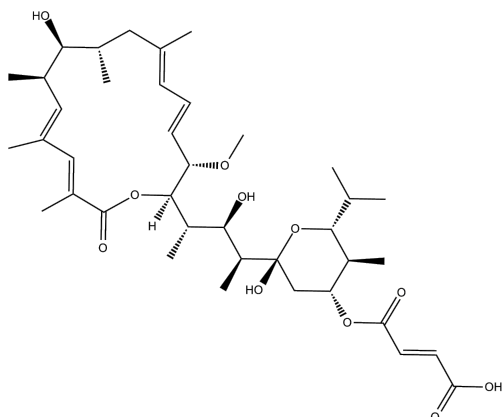
Solubility DMF: soluble, DMSO: soluble, Ethanol: soluble

Storage Store 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

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

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TS 155-2, is a macrocyclic lactone related to hygrolidin, is produced by a different Streptomyces species found in soil. It blocks thrombin-evoked calcium (Ca^{2+}) entry into cells. TS155-2 exerts hypotensive, anti-platelet, anti-ischaemic and anti-inflammatory activity showed on the original patent, however, no literature investigation of TS155-2 is available.

A rapid increase in cytosolic Ca^{2+} is related to the signal transduction events following the induction of thrombin in a wide range of cell types which include fibroblasts, platelets, megakaryocytes, endothelium and smooth muscle. Thrombin-stimulated Ca^{2+} mobilization has been shown to be involved in both Ca^{2+} release from internal storage sites and Ca^{2+} influx and has been extensively studied in human platelets. Thrombin triggers phospholipase C resulting in the rapid generation of inositol 1,4,5-trisphosphate (IP_3), which elicits the release of Ca^{2+} from IP_3 -sensitive stores. However, the thrombin-induced Ca^{2+} influx is still an area of contention [1].

In vitro: Up to now, in vitro study of TS 155-2 is still in the development stage.

In vivo: Up to now, in vivo study of TS 155-2 is still in the development stage.

Reference:

[1]. Somasundaram, B., Mason, M., & Mahaut-Smith, M. Thrombin-dependent calcium signalling in single human erythroleukaemia cells. The Journal of Physiology. 1997;501(3):485-495.

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