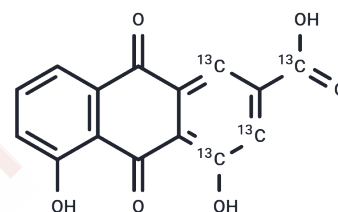


## Rhein-13C4

## Chemical Properties

CAS No. :	1189928-10-6
Formula:	C <sub>15</sub> H <sub>8</sub> O <sub>6</sub>
Molecular Weight:	288.192
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Rhein-13C4 is intended for use as an internal standard for the quantification of rhein by GC- or LC-MS. Rhein (T2997) is an anti-inflammatory anthraquinone found in rhubarb and is the bioactive derivative of its prodrug diacerein . At 10 $\mu$ M, rhein inhibits IL-1 $\beta$ signaling, suppressing signaling through NF- $\kappa$ B, and reduces the expression of the matrix metalloproteases MMP-1 and MMP-13.1 It inhibits IKK $\beta$ (IC <sub>50</sub> = 11.8 $\mu$ M), decreasing iNOS and IL-6 expression in LPS-stimulated macrophages but paradoxically increasing TNF- $\alpha$ , IL-1 $\beta$ , and HMBG1 expression.2 Rhein (T2997) shows efficacy against pancreatic fibrosis, chronic pancreatitis, and hyperglycemia-induced pancreatic $\beta$ -cell apoptosis.3,4 It also inhibits angiogenesis of breast cancer cells under normoxic and hypoxic conditions.5
Targets(IC <sub>50</sub> )	Apoptosis, Reactive Oxygen Species, Antibacterial, Autophagy

## Solubility Information

Solubility	DMSO: Soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.4699 mL	17.3497 mL	34.6993 mL
5 mM	0.694 mL	3.4699 mL	6.9399 mL
10 mM	0.347 mL	1.735 mL	3.4699 mL
50 mM	0.0694 mL	0.347 mL	0.694 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

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