Sphingosine, D-erythro

Potent and selective inhibitor of protein kinase C

Common component of cell membranes, often as phosphatidyl conjugates. Is a potent (IC_{50}=1-3 μM) and selective inhibitor of protein kinase C. Inhibition is competitive with diacylglycerol, phorbol dibutyrate and Ca^{2+} and it also inhibits PKC activation by other lipids. It acts on an equimolar basis with 1,2-dioleoylglycerol and does not affect other kinases such as MLCK and PKA. It is active in intact cells and has been identified as an endogenous constituent in HL-60 cells, neutrophils, rat liver, and brain and mouse tissues. Other activities include inhibition of phosphatidate phosphohydrolase, Na^{+},K^{+}-ATPase, CTP:phosphocholine cytidylyltransferase, calmodulin-dependent enzymes, binding of factor VII to tissue factor, binding of thyrotropin releasing hormone to its receptor and activation of EGF receptor kinase, phospholipase D and casein kinase II.

Citations: 11 View Online »

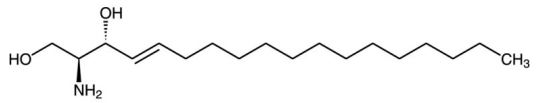
Ordering Information

Order Online »

BML-EI155-0025	25mg
BML-EI155-0100	100mg

Manuals, SDS & CofA

View Online »


OH
HO
NH2
CH3

Handling & Storage

Use/Stability	As indicated on product label or CoA when stored as recommended. Stable for at least 1 year after receipt when stored, as supplied, at -20°C. Stock solutions are stable for up to 3 months at -20°C.
Long Term Storage	-20°C
Shipping	Ambient Temperature

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	D(+)-erythro-1,3-Dihydroxy-2-amino-4- trans-octadecene
Appearance	White to off-white solid.
CAS	123-78-4
Couple Target	PKC
Couple Type	Inhibitor
Formula	$C_{18}H_{37}NO_2$
MI	**14**: 8747
MW	299.5
Purity	≥98% (TLC)
Solubility	Soluble in 100% ethanol (25mg/ml warm) or DMSO (25mg/ml warm).

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