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Certificate of Analysis

PRODUCT: **Rottlerin,** [Mallotoxin]
[3′-[(8-Cinnamoyl-5,7-dihydroxy-2,2-dimethyl-2*H*-1-benzopyran-6-yl)methyl]-2′,4′,6′-trihydroxy-5′-methylacetophenone],
$C_{30}H_{28}O_8$, M.W. 516.5, CAS# [82-08-6]

PRODUCT NUMBER: R-1120

LOT NUMBER: F1224C

APPEARANCE: Brown crystalline powder

SOLUBILITY: May be dissolved in DMSO (50mg/ml).

PURITY (TLC): >98%

NMR: Conforms

PRODUCT DESCRIPTION: Mitochondrial uncoupler that depolarizes the mitochondrial membrane potential, reduces cellular ATP levels, activates 5'-AMP-activated protein kinase (AMPK) and affects mitochondrial production of reactive oxygen species (ROS). Potent activator of multiple Ca^{2+}-sensitive K^+channels. Blocks several kinases and non-kinase proteins in vitro. Has been widely-used as a selective inhibitor of protein kinase Cδ (PKCδ) (IC_{50} = 3-6μM). Although there is extensive published documentation to support the use of rottlerin as a selective PKCδ inhibitor, there has been some controversy in the literature over this claim. Some of this controversy may arise from the fact that rottlerin is a promiscuous inhibitor and therefore may not always display the same properties as would be expected from a classical 1:1 inhibitor. However, there are studies indicate that rottlerin has no direct effect on PKCδ and that it should not be used to determine the involvement of PKCδ in biological processes. Induces autophagy by inhibition of mTORC1 signaling.

STORAGE & HANDLING: Store desiccated at -20°C, solutions at -20°C for up to 1 month.
WARNING: TOXIC! CONSULT MSDS BEFORE HANDLING!
CAUTION: For laboratory research & scientific manufacturing use only. Not for human or drug use. The pharmacological and toxicological properties of this product have not been fully investigated. Use caution when handling. Do not use this compound if you are not fully trained or are unaware of the hazards involved.

Verified: EV

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