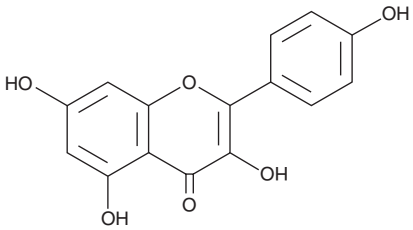
PRODUCT INFORMATION

Kaempferol

Item No. 11852

CAS Registry No.:	520-18-3
Formal Name:	3,5,7-trihydroxy-2-(4-hydroxyphenyl)-4H-1-benzopyran-4-one
Synonyms:	Nimbecetin, NSC 407289, NSC 656277, Pelargidenon, Rhamnolutein, Swartziol, Trifolitin
MF:	$C_{15}H_{10}O_6$
FW:	286.2
Purity:	≥98%
UV/Vis.:	λ_{max}: 204, 267, 368 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Kaempferol is supplied as a crystalline solid. A stock solution may be made by dissolving the kaempferol in the solvent of choice, which should be purged with an inert gas. Kaempferol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of kaempferol in these solvents is approximately 11, 10, and 3 mg/ml, respectively.

Kaempferol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, kaempferol should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Kaempferol has a solubility of approximately 0.2 mg/ml in a 1:4 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Kaempferol is a flavonoid which is abundant in a variety of plant leaves and fruits. It has diverse physiological activities through both direct and indirect effects.[1,2] For example, kaempferol directly binds estrogen receptors α and β, acting as an inverse agonist or agonist.[3,4] It also acts as an antioxidant, which presumably contributes to its ability to suppress advanced glycation endproduct-induced NADPH oxidase, NF-κB signaling, and hypoxia-inducible factor-related angiogenesis and VEGF expression.[5,6] Kaempferol also suppresses signaling through certain receptor tyrosine kinases, including EGFR and HGF.[2,7,8]

References

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CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM