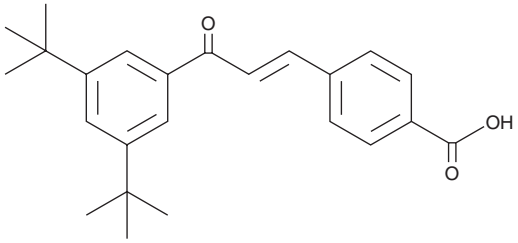
PRODUCT INFORMATION

Ch 55

Item No. 18658

CAS Registry No.:	110368-33-7
Formal Name:	4-[(1E)-3-[3,5-*bis*(1,1-dimethylethyl)phenyl]-3-oxo-1-propen-1-yl]-benzoic acid
MF:	$C_{24}H_{28}O_3$
FW:	364.5
Purity:	≥98%
UV/Vis.:	λ_{max}: 308 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

Ch 55 is supplied as a crystalline solid A stock solution may be made by dissolving the Ch 55 in the solvent of choice, which should be purged with an inert gas. Ch 55 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of Ch 55 in ethanol is approximately 5 mg/ml and approximately 25 mg/ml in DMSO and DMF.

Ch 55 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, Ch 55 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Ch 55 has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Ch 55 is a synthetic analog of retinoic acid (Item No. 11017) that binds to retinoic acid receptors with similar efficiency as retinoic acid (K_is in the nM range) yet does not display affinity for cellular retinoic acid-binding protein (K_i = 540 µM).[1] Ch 55 has been shown to inhibit squamous cell differentiation of rabbit tracheal epithelial cells by inhibiting type I transglutaminase activity (EC_{50} = 0.02 nM) and increasing cholesterol sulfate levels (EC_{50} = 0.03 nM).[1] In contrast, it has also been shown to induce differentiation of embryonic carcinoma F9 cells and melanoma S91 cells (EC_{50}s = 0.26 and 0.5 nM, respectively), as well as inhibit the induction of ornithine decarboxylase activity in 3T6 fibroblasts (EC_{50} = 1 nM).[1]

Reference

1. Jetten, A.M., Anderson, K., Deas, M.A., *et al.* New benzoic acid derivatives with retinoid activity: Lack of direct correlation between biological activity and binding to cellular retinoic acid binding protein. *Cancer Res.* **47(13)**, 3523-3527 (1987).

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