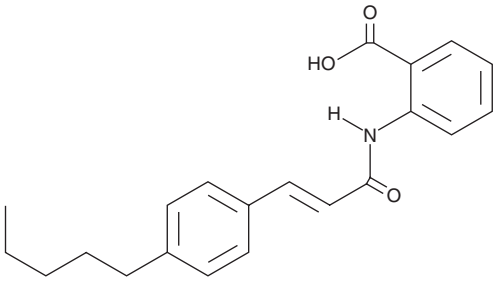
PRODUCT INFORMATION

N-(p-amylcinnamoyl) Anthranilic Acid

Item No. 14531

CAS Registry No.:	110683-10-8
Formal Name:	2-[[1-oxo-3-(4-pentylphenyl)-2-propen-1-yl]amino]-benzoic acid
Synonym:	ACA
MF:	$C_{21}H_{23}NO_3$
FW:	337.4
Purity:	≥95%
UV/Vis.:	λ_{max}: 216, 300, 323 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

N-(p-amylcinnamoyl) Anthranilic acid is supplied as a crystalline solid. A stock solution may be made by dissolving the N-(p-amylcinnamoyl) anthranilic acid in the solvent of choice, which should be purged with an inert gas. N-(p-amylcinnamoyl) Anthranilic acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of N-(p-amylcinnamoyl) anthranilic acid in ethanol and DMF is approximately 5 mg/ml and approximately 11.1 mg/ml in DMSO.

N-(p-amylcinnamoyl) Anthranilic acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, N-(p-amylcinnamoyl) anthranilic acid should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. N-(p-amylcinnamoyl) Anthranilic acid has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

N-(p-amylcinnamoyl) Anthranilic acid (ACA) is a channel blocker that acts on several transient receptor potential (TRP) channels, including TRPM2, TRPM8, and TRPC6 (IC_{50} = 1.7, 3.8, and 2.3 µM, respectively).[1,2] It is a weak inhibitor of TRPV1.[2] ACA is also an inhibitor of phospholipase A_2, blocking the release of arachidonic acid when given at 50 µM.[3,4]

References

1. Kraft, R., Grimm, C., Frenzel, H., *et al.* Inhibition of TRPM2 cation channels by N-(*p*-amylcinnamoyl) anthranilic acid. *Br. J. Pharmacol.* **148(3)**, 264-273 (2006).
2. Harteneck, C., Frenzel, H., and Kraft, R. *N*-(p-amylcinnamoyl)anthranilic acid (ACA): A phospholipase A_2 inhibitor and TRP channel blocker. *Cardiovasc. Drug Rev.* **25(1)**, 61-75 (2007).
3. Konrad, R.J., Jolly, Y.C., Major, C., *et al.* Inhibition of phospholipase A_2 and insulin secretion in pancreatic islets. *Biochim. Biophys. Acta* **1135(2)**, 215-220 (1992).
4. Simonsson, E., Karlsson, S., and Ahrén, B. Ca^{2+}-independent phospholipase A_2 contributes to the insulinotropic action of cholecystokinin-8 in rat islets. *Diabetes* **47(9)**, 1436-1443 (1998).

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