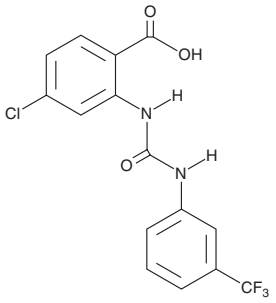
PRODUCT INFORMATION

NS 3694

Item No. 19190

CAS Registry No.:	426834-38-0
Formal Name:	4-chloro-2-[[[[3-(trifluoromethyl)phenyl] amino]carbonyl]amino]-benzoic acid
Synonym:	Apoptosis Inhibitor II
MF:	$C_{15}H_{10}ClF_3N_2O_3$
FW:	358.7
Purity:	≥98%
UV/Vis.:	λ_{max}: 224, 243, 269 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

NS 3694 is supplied as a crystalline solid. A stock solution may be made by dissolving the NS 3694 in the solvent of choice, which should be purged with an inert gas. NS 3694 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of NS 3694 in these solvents is approximately 14, 20, and 25 mg/ml, respectively.

NS 3694 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, NS 3694 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. NS 3694 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Cytochrome *c*, which leaks from the mitochondrial intermembrane space into the cytosol, causes oligomerization of apoptotic protease-activating factor 1 (Apaf-1), forming a caspase activation complex known as the apoptosome.[1] NS 3694 is a cell-permeable diarylurea compound that inhibits apoptosome formation and caspase activation.[2] It blocks cytochrome *c*-induced caspase activation in HeLa cell cytosolic extracts with an IC_{50} value of approximately 50 µM.[2] NS 3694 prevents the formation of apoptosomes, which prevents the association of procaspases with Apaf-1.[2] It suppresses caspase activation and apoptosis in cells treated with either TNF-α or staurosporine (Item No. 81590).[2] NS 3694 is used to examine the role of apoptosome-mediated caspase activation in cell death.[3-5]

References

1. Nikoletopoulou, V., Markaki, M., Palikaras, K., *et al. Biochim. Biophys. Acta*. **1833(12)**, 3448-3459 (2013).
2. Lademann, U., Cain, K., Gyrd-Hansen, M., *et al. Mol. Cell Biol.* **23(21)**, 7829-7837 (2003).
3. Zhao, C.-Q., Zhang, Y.-H., Jiang, S.-D., *et al. Age (Dordr)* **32(2)**, 161-177 (2010).
4. Miyake, K., Bekisz, J., Zhao, T., *et al. Biochim. Biophys. Acta* **1823(8)**, 1378-1388 (2012).
5. Gauron, C., Rampon, C., Bouzaffour, M., *et al. Sci. Rep.* **3:2084**, (2013).

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