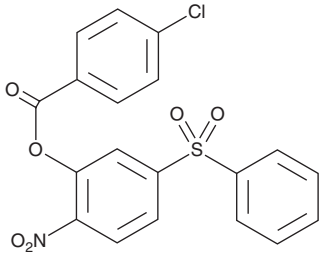
PRODUCT INFORMATION

BTB06584

Item No. 21032

CAS Registry No.:	219793-45-0
Formal Name:	4-chloro-benzoic acid, 2-nitro-5-(phenylsulfonyl)phenyl ester
Synonym:	BTB
MF:	$C_{19}H_{12}ClNO_6S$
FW:	417.8
Purity:	≥95%
UV/Vis.:	λ_{max}: 248 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥2 years



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

Laboratory Procedures

BTB06584 (BTB) is supplied as a crystalline solid. A stock solution may be made by dissolving the BTB in the solvent of choice. BTB is soluble in organic solvents such as DMSO and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of BTB in these solvents is approximately 20 and 30 mg/ml, respectively.

BTB is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, BTB should first be dissolved in DMF and then diluted with the aqueous buffer of choice. BTB has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

BTB is an inhibitor of mitochondrial F_1F_O-ATP synthase (F_1F_O-ATPase) that has no effect on mitochondrial membrane potential ($\Delta\Psi_m$) or oxygen consumption.[1] It slows ATP consumption following inhibition of cellular respiration. BTB (100 µM) protects against ischemic cell death of HL-1 cells and rescues defective hemoglobin synthesis in pinotage (*pnt*) mutant zebrafish. BTB, in combination with ionizing radiation, increases apoptosis of A549 cells.[2]

References

1. Ivanes, F., Faccenda, D., Gatliff, J., *et al.* The compound BTB06584 is an IF_1-dependent selective inhibitor of the mitochondrial F_1 Fo-ATPase. *Br. J. Pharmacol.* **171(18)**, 4193-4206 (2014).
2. Wang, Y., Hou, Q., Xiao, G., *et al.* Selective ATP hydrolysis inhibition in F1Fo ATP synthase enhances radiosensitivity in non-small-cell lung cancer cells (A549). *Oncotarget* (2017).

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