



Catalog Number:	MC11036	Product Type:	Small Molecule
Bio-Activity:	Bcl-2 family inhibitor, Senolytic agent	CAS #:	923564-51-6
Research Categories:	Cell death, neuroscience, stem cells, cancer, ageing, neurodegeneration	Chemical Name:	4-[4-[[2-(4-chlorophenyl)-5,5-dimethyl-1-cyclohexen-1-yl]methyl]-1-piperazinyl]-N-[[4-[[[(1R)-3-(4-morpholinyl)-1-[(phenylthio)methyl]propyl]amino]-3-[(trifluoromethyl)sulfonyl]-phenyl]sulfonyl]-benzamide
Solubility:	Soluble in DMSO (up to 25 mg/ml)	Molecular Formula:	C47H55ClF3N5O6S3
Purity:	> 98%	Molecular Weight:	974.6
Format:	Powder	Ship Temp:	Ambient
Storage:	-20°C		

Application Notes

Description/Data:

Potent and selective Bcl-2 family inhibitor / BH3 domain mimetic which binds to Bcl-2, Bcl-xL and Bcl-w (Ki<1 nM) [1]. A useful tool compound which has shown interesting results in various cancer clinical trials [2]. Synergizes with deoxyglucose and other agents, inducing apoptosis in cancer cells in a xenograft mouse model [3]. A novel senolytic agent, inducing apoptosis preferentially in senescent cells in a cell type-restricted manner [4].

References:

- 1) Tse et al. (2008), ABT-263: a potent and orally bioavailable Bcl-2 family inhibitor; Cancer Res., 68 3421
- 2) Vogler et al. (2009), Bcl-2 inhibitors: small molecules with a big impact on cancer therapy; Cell Death Differ., 16 360
- 3) Yamaguchi et al. (2011), Efficient elimination of cancer cells by deoxyglucose-ABT-263/737 combination therapy; PLoS ONE, 6(9) e24102
- 4) Zhu et al. (2016), Identification of a novel senolytic agent, navitoclax, targeting the Bcl-2 family of anti-apoptotic factors; Aging Cell, 15 428

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