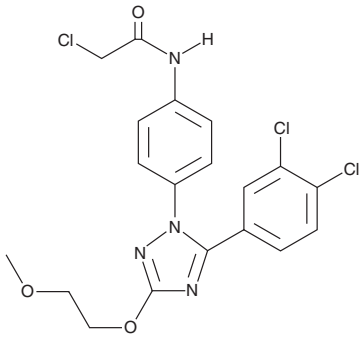
PRODUCT INFORMATION

MI 2

Item No. 23437

CAS Registry No.:	1047953-91-2
Formal Name:	2-chloro-N-[4-[5-(3,4-dichlorophenyl)-3-(2-methoxyethoxy)-1H-1,2,4-triazol-1-yl]phenyl]-acetamide
MF:	$C_{19}H_{17}Cl_3N_4O_3$
FW:	455.7
Purity:	≥98%
UV/Vis.:	λ_{max}: 253 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

MI 2 is supplied as a crystalline solid. A stock solution may be made by dissolving the MI 2 in the solvent of choice, which should be purged with an inert gas. MI 2 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of MI 2 in ethanol is approximately 16 mg/ml and approximately 33 mg/ml in DMSO and DMF.

MI 2 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, MI 2 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. MI 2 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

MI 2 is an inhibitor of the paracaspase MALT1 with an IC_{50} value of 5.84 µM in a fluorescence assay.[1] It inhibits the growth of MALT1-dependent activated B cell-like diffuse large B cell lymphoma (ABC-DLBCL) cell lines (GI_{50}s = 0.2, 0.5, 0.4, and 0.4 µM for HBL-1, TMD8, OCI-Ly3, and OCI-Ly10 cells, respectively). MI 2 inhibits cleavage of the MALT1 target protein CYLD in a dose-dependent manner in HBL-1 cells but does not inhibit caspase-3, caspase-8, and caspase-9, which are structurally similar to MALT1. MI 2 (25 mg/kg, i.v.) reduces tumor size in TMD8 and HBL-1 mouse xenograft models.

Reference

1. Fontan, L., Yang, C., Kabaleeswaran, V., *et al.* MALT1 small molecule inhibitors specifically suppress ABC-DLBCL *in vitro* and *in vivo*. *Cancer Cell*. **22(6)**, 812-824 (2012).

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