

Product Specification Sheet

Product Name: YM155

Catalog Number: C9615

Technical information:

Chemical Formula: $C_{20}H_{19}BrN_4O_3$

CAS #: 781661-94-7

Molecular Weight: 443.29

Purity: > 98%

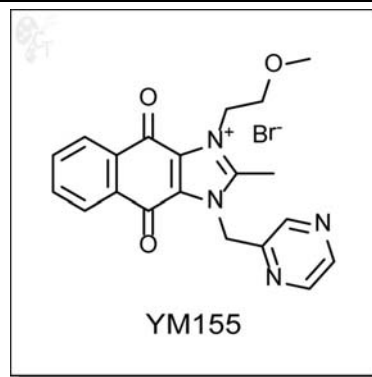
Appearance: White solid

Solubility: Soluble in DMSO up to 100 mM

Chemical Name: 1H-Naphth[2,3-d]imidazolium, 4,9-dihydro-1-(2-methoxyethyl)-2-methyl-4,9-dioxo-3-(2-pyrazinylmethyl)-, bromide (1:1)

Storage: Store solid powder at 4°C desiccated; Store DMSO solution at -20°C.

Shelf Life: In the unopened package, powder is stable for 1 year and DMSO solution is stable for 6 months under proper storage condition.



- Handling:**
- To make 10 mM stock solution, add 0.226mL of DMSO for each mg of YM155.
 - For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

Biological Activity: YM155 is an imidazolium-based inhibitor of survivin in a dose-dependent manner when administered from 10 to 1000 nM. YM155 suppresses survivin expression and induces apoptosis in PC-3 and PPC-1 human hormone-refractory prostate cancer (HRPC) cell lines at 10 nM. In addition to other HRPC cell lines, YM155 also shows activity against malignant melanoma lines SKMEL5 and A375 at GI50s of 4.2 and 6.3 nM, respectively. [1]

In independent studies, YM155 was shown to inhibit SK-NEP-1 Wilms tumor cells at an IC50 of 100 nM, while concurrently inducing apoptosis. [2]

YM155 is believed to sensitize NSCLC cells to radiation both in vivo and in vitro by downregulating survivin expression in a concentration- and time-dependent manner. YM155 delays the repair of radiation-induced double-strand breaks in nuclear DNA. [3]

- Reference:**
1. Nakahara et al., YM155, a Novel Small-Molecule Survivin Suppressant, Induces Regression of Established Human Hormone-Refractory Prostate Tumor Xenografts. *Cancer Res.* 2007, 67, 8014-8021. Pubmed ID: 17804712
 2. Tao et al., Survivin selective inhibitor YM155 induce apoptosis in SK-NEP-1 Wilms tumor cells. *BMC Cancer*, 2012, 12, 619-631. Pubmed ID: 23267699
 3. Iwasa et al., Radiosensitizing Effect of YM155, a Novel Small-Molecule Survivin Suppressant, in Non-Small Cell Lung Cancer Cell Lines. *Clin. Cancer Res.* 2008, 14, 6496-6504.

To reorder: <http://www.cellagentech.com/YM155/>

For Technical Support: technical@cellagentech.com

Chemicals are sold for research use only, not for clinical or diagnostic use.