

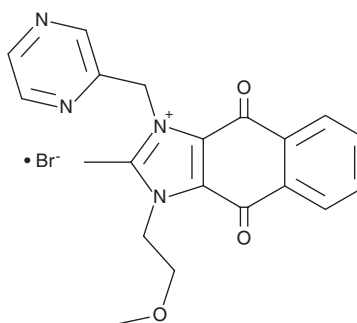
PRODUCT INFORMATION



YM-155

Item No. 11490

CAS Registry No.: 781661-94-7
Formal Name: 4,9-dihydro-1-(2-methoxyethyl)-2-methyl-4,9-dioxo-3-(2-pyrazinylmethyl)-1H-naphth[2,3-d]imidazolium, bromide
Synonym: Sepantronium bromide
MF: C₂₀H₁₉N₄O₃ • Br
FW: 443.3
Purity: ≥98%
UV/Vis.: λ_{max}: 246, 252, 271, 344 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

YM-155 is supplied as a crystalline solid. A stock solution may be made by dissolving the YM-155 in the solvent of choice, which should be purged with an inert gas. YM-155 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of YM-155 in these solvents is approximately 1, 10, and 3 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of YM-155 can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of YM-155 in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Survivin, a member of the inhibitor of apoptosis (IAP) family, plays an important role in drug resistance and cancer cell survival in many types of cancer. YM-155 is a novel small molecule that suppresses transactivation of survivin through direct binding to its promoter.¹ It selectively suppresses expression of survivin and induces apoptosis in p53-deficient cancer cells *in vitro* at 10 nM.² At concentrations up to 100 nM, YM-155 has little effect on expression levels of other IAP- or Bcl-2-related proteins.² YM-155 exerts anti-tumor effects in various *in vivo* cancer models, including prostate, pancreatic, and lung cancer.^{2,3}

References

1. Nakamura, N., Yamauchi, T., Hiramoto, M., *et al.* Interleukin enhancer-binding factor 3/NF110 is a target of YM155, a suppressant of survivin. *Mol. Cell. Proteomics* **11(7)**, (2012).
2. Nakahara, T., Takeuchi, M., Kinoyama, I., *et al.* YM155, a novel small-molecule survivin suppressant, induces regression of established human hormone-refractory prostate tumor xenografts. *Cancer Res.* **67(17)**, 8014-8021 (2007).
3. Na, Y.S., Yang, S.J., Kim, S.M., *et al.* YM155 induces EGFR suppression in pancreatic cancer cells. *PLoS One* **7(6)**, (2012).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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