

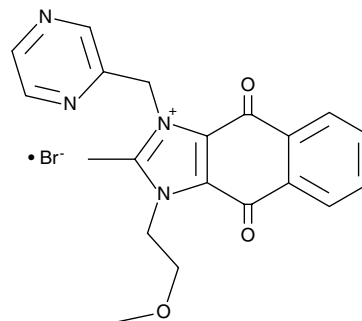
# Product Information



## 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:** C<sub>20</sub>H<sub>19</sub>N<sub>4</sub>O<sub>3</sub> • Br  
**FW:** 443.3  
**Purity:** ≥98%  
**Stability:** ≥2 years at -20°C  
**Supplied as:** A crystalline solid  
**UV/Vis.:** λ<sub>max</sub>: 246, 252, 271, 344, 350 nm



### Laboratory Procedures

For long term storage, we suggest that YM-155 be stored as supplied at -20°C. It should be stable for at least two years. YM-155 is supplied as a crystalline solid. A stock solution may be made by dissolving the YM-155 in the solvent of choice. YM-155 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. 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.

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 retransactivation of survivin through direct binding to its promoter.<sup>1</sup> It selectively suppresses expression of survivin and induces apoptosis in p53-deficient cancer cells *in vitro* at 10 nM.<sup>2</sup> At concentrations up to 100 nM, YM-155 has little effect on expression levels of other IAP- or Bcl-2-related proteins.<sup>2</sup> YM-155 exerts anti-tumor effects in various *in vivo* cancer models, including prostate, pancreatic, and lung cancer.<sup>2,3</sup>

### 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).

### Related Products

For a list of related products please visit: [www.caymanchem.com/catalog/11490](http://www.caymanchem.com/catalog/11490)

**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

#### SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will **meet our specifications at the time of delivery.**

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have **any obligation or liability**, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

Buyer's **exclusive remedy** and Cayman's sole liability hereunder shall be limited to a **refund** of the purchase price, or at Cayman's option, the **replacement**, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our **Warranty and Limitation of Remedy located on our website and in our catalog.**

Copyright Cayman Chemical Company, 03/06/2015

### Cayman Chemical

**Mailing address**  
1180 E. Ellsworth Road  
Ann Arbor, MI  
48108 USA

**Phone**  
(800) 364-9897  
(734) 971-3335

**Fax**  
(734) 971-3640

**E-Mail**  
custserv@caymanchem.com

**Web**  
[www.caymanchem.com](http://www.caymanchem.com)