

Certificate of Analysis

Catalog Number	BP22555
Product Name	Sepantronium bromide

Physical and Chemical Properties

CAS No.	781661-94-7
Chemical Formula	C20H19BrN4O3
Molecular Weight	443.29
Solubility	DMSO: 50 mg/mL (112.79 mM, Need ultrasonic) H2O: 50 mg/mL (112.79 mM, Need ultrasonic)
Storage	Powder: -20°C for 2 years In solvent: -80°C for 1 year
Chemical Structure OR Tested Image	$ \begin{array}{c} $

Product Information

Description	Sepantronium bromide (YM-155) is a survivin inhibitor with an IC50 of 0.54 nM.
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In vitro	Sepantronium bromide (YM155; 30 μ M) is not sensitive to survivn gene promoter-driven luciferase reporter activity. Sepantronium bromide shows significant supression on endogenous survivin expression in PC-3 and PPC-1 human HRPC cells with deficient p53 via transcriptional inhibition of the survivin gene promoter. Sepantronium bromide (100 nM) does not affect protein expression of c-IAP2, XIAP, Bcl-2, Bcl-xL, Bad, α -actin, and β -tubulin. Sepantronium bromide potently inhibits human cancer cell lines (mutated or truncated p53) such as PC-3, PPC-1, DU145, TSU-Pr1, 22Rv1, SK-MEL-5 and A375 with IC50s ranging from 2.3 to 11 nM, respectively.Sepantronium bromide (YM155) resultin in an increase in sensitivity of NSCLC cells to γ - radiation. Sepantronium bromide combined with γ -radiation increases both the number of apoptotic cells and the activity of caspase-3. In addition, Sepantronium bromide delays the repair of radiation-induced double-strand breaks in nuclear DNA.
In vivo	Sepantronium bromide (YM155; 3 and 10 mg/kg) inhibits the tumor growth in PC-3 xenografts, without obvious body weight loss and blood cell count decrease. Sepantronium bromide is highly distributed to tumor tissue in vivo. Sepantronium bromide shows 80% TGI at a dose of 5 mg/kg in PC-3 orthotopic xenografts. Sepantronium bromide (YM155) in combination with γ -radiation shows potent antitumor activity against H460 or Calu6 xenografts in nude mice. In this orthotopic renal and metastatic lung tumors models, Sepantronium bromide (YM-155) and IL-2 additively decreases tumor weight, lung metastasis, and luciferin- stained tumor images.

Analytical Data

HPLC	Shows Min >99% purity
H-NMR	Consistent with structure
Stability and Solubility Advice	Information on product stability, especially in solution, has rarely been reported and in most cases we can only provide a general guideline. We recommend that once the stock solution has been prepared, it be stored in equal quantities in sealed vials and used within 1 month. Avoid repeated freezing and thawing cycles. Storage conditions for some special products should be referred to their storage details.

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