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Produktinformation

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siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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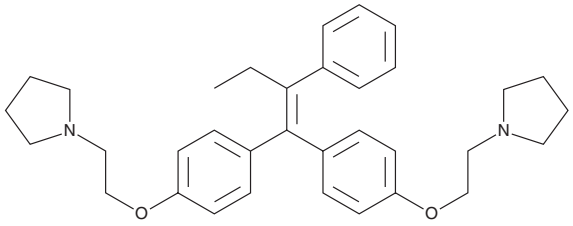
PRODUCT INFORMATION

Ridaifen-B

Item No. 21966

CAS Registry No.:	886465-70-9
Formal Name:	1,1'-[(2-phenyl-1-buten-1-ylidene)*bis*(4,1-phenyleneoxy-2,1-ethanediyl)]*bis*-pyrrolidine
MF:	$C_{34}H_{42}N_2O_2$
FW:	510.7
Purity:	≥98%
UV/Vis.:	λ_{max}: 210, 246, 286 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Ridaifen-B is supplied as a crystalline solid. A stock solution may be made by dissolving the ridaifen-B in the solvent of choice, which should be purged with an inert gas. Ridaifen-B is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of ridaifen-B in ethanol and DMF is approximately 20 mg/ml and approximately 2 mg/ml in DMSO.

Ridaifen-B is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ridaifen-B should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Ridaifen-B has a solubility of approximately 0.3 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Ridaifen-B is an antagonist of estrogen receptor α (ERα; IC_{50} = 52.4 nM), an inverse agonist of cannabinoid (CB) receptor 2 (CB_2; K_i = 43.7 nM), and a derivative of tamoxifen (Item No. 13258).[1] It is selective for CB_2 over CB_1 receptors (K_i = 732 nM).[2] Ridaifen-B was designed to be cytotoxic to cancer cells independent of ER binding; it inhibits growth of ER-positive and ER-negative cells in a panel of 39 cancer cell lines (GI_{50}s = 0.20-2.14 µM).[3] It induces apoptosis and autophagy in ER-negative Jurkat cells when used at a concentration of 0.4 µM.[4] Ridaifen-B decreases nitric oxide (NO) production and protein levels of IL-1α and IL-6 in LPS-stimulated RAW 264.7 cells when used at a concentration of 1 µM.[2]

References

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2. Franks, L.N., Ford, B.M., Fujiwara, T., *et al.* The tamoxifen derivative ridaifen-B is a high affinity selective CB_2 receptor inverse agonist exhibiting anti-inflammatory and anti-osteoclastogenic effects. *Toxicol. Appl. Pharmacol.* **353**, 31-42 (2018).
3. Shiina, I., Sano, Y., Nakata, K., *et al.* Synthesis and pharmacological evaluation of the novel *pseudo*-symmetrical tamoxifen derivatives as anti-tumor agents. *Biochem. Pharmacol.* **75(5)**, 1014-1026 (2008).
4. Nagahara, Y., Takeyoshi, M., Sakemoto, S., *et al.* Novel tamoxifen derivative Ridaifen-B induces Bcl-2 independent autophagy without estrogen receptor involvement. *Biochem. Biophys. Res. Commun.* **435(4)**, 657-663 (2013).

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