Small Molecules

BMS 493

Retinoid pathway activator; Activates pan-retinoic acid receptor

Catalog #	73972	1 mg
	73974	10 mg

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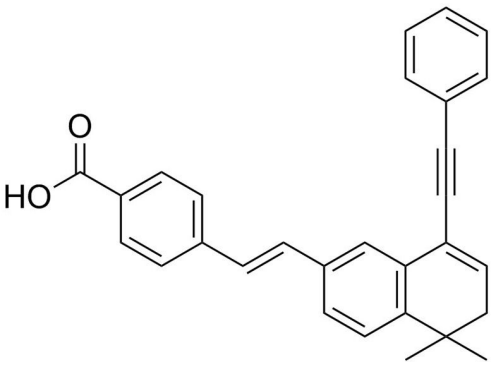
Product Description

BMS 493 is an inverse agonist of the pan-retinoic acid receptors (RARs). RARs are ligand-dependent transcription factors that regulate gene networks that control cell growth, differentiation, survival, and death (Germain et al.). BMS 493 has been shown to increase nuclear receptor co-repressor (NCoR) interaction with RARs (Germain et al.; Rinkevich et al.).

Molecular Name:	BMS 493
Alternative Names:	BMS 204493
CAS Number:	215030-90-3
Chemical Formula:	$C_{29}H_{24}O_2$
Molecular Weight:	404.5 g/mol
Purity:	≥ 98%
Chemical Name:	4-[(E)-2-[5,5-dimethyl-8-(2-phenylethynyl)-6H-naphthalen-2-yl]ethenyl]benzoic acid
Structure:	

Properties

Physical Appearance:	A crystalline solid
Storage:	Product stable at -20°C as supplied. Protect product from prolonged exposure to light. For long-term storage store with a desiccant. Stable as supplied for 12 months from date of receipt.
Solubility:	· DMSO ≤ 60 mM For example, to prepare a 10 mM stock solution in DMSO, resuspend 1 mg in 247 µL of DMSO. Prepare stock solution fresh before use. Information regarding stability of small molecules in solution has rarely been reported, however, as a general guide we recommend storage in DMSO at -20°C. Aliquot into working volumes to avoid repeated freeze-thaw cycles. The effect of storage of stock solution on compound performance should be tested for each application. For use as a cell culture supplement, stock solution should be diluted into culture medium immediately before use. Avoid final DMSO concentration above 0.1% due to potential cell toxicity.

Published Applications

DIFFERENTIATION
· Affects development of bronchial tubule formation in mice (Chazaud et al.).
· Inhibits activation of immature dendritic cells (Geissmann et al.).
CANCER RESEARCH
· Inhibits differentiation of leukemic blasts (Kamashev et al.).

References

Chazaud C et al. (2003) Retinoic acid signaling regulates murine bronchial tubule formation. Mech Dev 120(6): 691–700.
Geissmann F et al. (2003) Retinoids regulate survival and antigen presentation by immature dendritic cells. J Exp Med 198(4): 623–34.
Germain P et al. (2009) Differential action on coregulator interaction defines inverse retinoid agonists and neutral antagonists. Chem Biol 16(5): 479–89.
Kamashev D et al. (2004) PML-RARA-RXR oligomers mediate retinoid and rexinoid/cAMP cross-talk in acute promyelocytic leukemia cell differentiation. J Exp Med 199(8): 1163–74.
Rinkevich Y et al. (2007) Systemic bud induction and retinoic acid signaling underlie whole body regeneration in the urochordate Botrylloides leachi. PLoS Biol 5(4): e71.

Related Small Molecules

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This product is hazardous. Please refer to the Safety Data Sheet (SDS).