Bisindolylmaleimide XI hydrochloride

Cat. No.: HY-117610A

CAS No.: 145333-02-4

Molecular Formula: $C_{28}H_{29}ClN_4O_2$

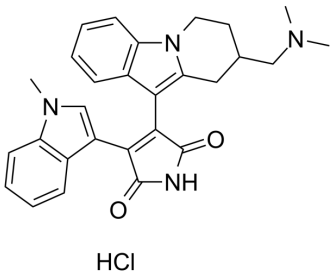
Molecular Weight: 489.01

Target: PKC

Pathway: Epigenetics; TGF-beta/Smad

Storage: -20°C, sealed storage, away from moisture

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



BIOLOGICAL ACTIVITY

Description	Bisindolylmaleimide XI hydrochloride (Ro 32-0432) is a potent, selective and orally active PKC inhibitor with IC_{50}s of 9 nM, 28 nM, 31 nM, 37 nM, and 108 nM for PKCα, PKCβI, PKCβII, PKCγ, and PKCε, respectively[1][2].
IC_{50} & Target	PKC-α 9 nM (IC_{50}) PKC-βI 28 nM (IC_{50}) PKC-βII 31 nM (IC_{50}) PKC-γ 37 nM (IC_{50}) PKC-ε 108 nM (IC_{50})
In Vitro	Bisindolylmaleimide XI hydrochloride (Ro 32-0432) inhibits IL-2 secretion, IL-2 receptor expression in, and proliferation of, peripheral human T-cells stimulated with phorbol ester together with phytohemagglutin or anti-CD3, but does not inhibit IL-2 induced proliferation in cells already stimulated to express IL-2 receptors. Proliferation of the influenza peptide antigen HA 307-319-specific human T-cell clone (HA27) after exposure to antigen-pulsed autologous presenting cells is also inhibited by Bisindolylmaleimide XI hydrochloride[2]. PKC inhibition with Bisindolylmaleimide XI hydrochloride (Ro 32-0432; 1 μM) decreases the proportion of apoptotic cells (-21%) in retinal progenitor cells (RPCs)[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Oral administration of Bisindolylmaleimide XI hydrochloride inhibits subsequent phorbol ester-induced edema in ratss. Induction of more physiologically T-cell driven responses such as host vs. graft responses and the secondary paw swelling in adjuvant-induced arthritis are also inhibited by Bisindolylmaleimide XI hydrochloride[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- J Adv Res. 2022 Jul 13;S2090-1232(22)00156-4.

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REFERENCES

[1]. S E Wilkinson, et al. Isoenzyme specificity of bisindolylmaleimides, selective inhibitors of protein kinase C. Biochem J. 1993 Sep 1;294 (Pt 2)(Pt 2):335-7.

[2]. A M Birchall, et al. Ro 32-0432, a selective and orally active inhibitor of protein kinase C prevents T-cell activation. J Pharmacol Exp Ther. 1994 Feb;268(2):922-9.

[3]. Roman Kholodenko, et al. Anti-apoptotic effect of retinoic acid on retinal progenitor cells mediated by a protein kinase A-dependent mechanism. Cell Res. 2007 Feb;17(2):151-62.

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