Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Bendamustine (hydrochloride)

Catalog No: tcsc1771

Available Sizes

Size: 100mg

Size: 200mg

Size: 500mg

Specifications

CAS No:
3543-75-7

Formula:
$C_{16}H_{22}Cl_3N_3O_2$

Pathway:
Cell Cycle/DNA Damage

Target:
DNA Alkylator/Crosslinker

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 30 mg/mL (76.00 mM)

Alternative Names:
SDX-105;EP-3101

Observed Molecular Weight:
394.72

Product Description

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Bendamustine hydrochloride is a **DNA cross-linking** agent that causes DNA breaks, with alkylating and antimetabolite properties.

IC50 & Target: DNA Alkylator/Crosslinker[1]

In Vitro: Bendamustine hydrochloride is a DNA cross-linking agent that causes DNA breaks, with alkylating and antimetabolite properties. Bendamustine uniquely regulates apoptosis pathways and DNA repair pathways in non-Hodgkin\'s lymphoma cells. Bendamustine (50 μM) induces p21 (Cip1/Waf1) and NOXA genes, and increases the expression of p53 in SU-DHL-1 cells. Bendamustine (25 μM) blocks mitotic checkpoints and cuases mitotic catastrophe[1]. Bendamustine reduces the viability of multiple myeloma (MM) cell lines, such as RPMI-8226 and 8226-LR5 cells, with IC_{25}s of 101.8 and 585.5 μM after 24 h incubation, and 51.7 and 374.3 μM after 48 h incubation, respectively. Bendamustine induces a specific caspase-dependent MM cell death and inhibits the spindle-assembly checkpoint[2].

In Vivo: Bendamustine (25 mg/kg, i.v.) shows potent inhibition on the growth of tumor cells by 91%, 99% and 95% for DoHH-2, Granta 519 and RAMOS models, respectively. Moreover, the antitumor effect of Bendamustine is enhanced by rituximab in DoHH-2 and RAMOS models, but not in Granta 519 model[3].