

Doxycycline (hydrochloride)

Catalog No: tcsc2632



Available Sizes

Size: 1g

Size: 5g



Specifications

CAS No:

10592-13-9

Formula:

$C_{22}H_{25}ClN_2O_8$

Pathway:

Metabolic Enzyme/Protease

Target:

MMP

Purity / Grade:

>98%

Solubility:

10 mM in DMSO

Observed Molecular Weight:

480.9

Product Description

Doxycycline hydrochloride is a tetracycline antibiotic and broad-spectrum metalloproteinase (**MMP**) inhibitor.

IC50 & Target: MMP

In Vitro: Doxycycline shows excellent effectiveness and time-dependent characteristics against *M. gallisepticum* strain S6 in vitro^[2]. Osteoblasts exposed to the composite containing 25 µg/mL doxycycline (DOX)/β-cyclodextrin (βCD) has increased cell proliferation

In Vivo: In heterozygous (HT) Col3a1 knockout mice, after 3 months of treatment with doxycycline or placebo, 9-month-old HT or wild-type (WT) mice are subjected to surgical stressing of the aorta. A 3-fold increase in stress-induced aortic lesions found in untreated HT mice 1 week after intervention (cumulative score 4.5 ± 0.87 versus 1.3 ± 0.34 in WT, p[1]).

