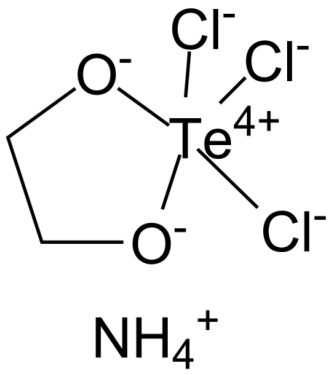
Data Sheet

Product Name:	Ossirene
Cat. No.:	CS-0020699
CAS No.:	106566-58-9
Molecular Formula:	$C_2H_8Cl_3NO_2Te$
Molecular Weight:	312.05
Target:	Caspase; Interleukin Related
Pathway:	Apoptosis; Immunology/Inflammation
Solubility:	DMSO : 12.5 mg/mL (40.06 mM; ultrasonic and warming and heat to 80°C)



BIOLOGICAL ACTIVITY:

Ossirene (AS101), an immunomodulatory tellurium compound, is a potent **IL-1β** inhibitor[1]. Ossirene abolishes phosphorylation of STAT3 by inhibiting **IL-10**. Ossirene potently inhibits **Caspase-1** and is used for the autoimmune diseases and certain malignancies[2][3][4]. **In Vitro:** Ossirene (AS101; 1 μg/mL; for 24 hours) almost completely abrogates expression of pStat3. Ossirene may reduce expression of Bcl-2 after inhibition of Stat3 activation via IL-10 inhibition[2].

AS101 (0.5, 5 mg/mL; 24 hours) inhibits IL-1β-induced mRNA expression of inflammatory mediators in the RPE in a dose-dependent manner. AS101 inhibits IL-1β-induced mRNA expression and protein production of IL-6 and IL-8 in RPE cells. AS101 (5 mg/mL; 1 hour) inhibits the phosphorylation of the p65 component of the NFκB complex activated by IL-1β[1].

Ossirene (0.1, 0.5, 1, 2.5 μg/mL) significantly decreases B16 melanoma, stomach adenocarcinoma, and human glioblastoma multiforme (GBM) cells proliferation[2].

AS101 (0.5 μg/mL; for 24 hours) sensitizes GBM tumor cells to paclitaxel in an IL-10-dependent manner[2].

In Vivo: Ossirene (AS101; 0.5 mg/kg/day; IP; 25 days) sensitizes GBM tumors to paclitaxel via inhibition of IL-10, resulting in increased survival[2].

References:

[1]. Sredni B, et al. Ammonium trichloro(dioxoethylene-o,o')tellurate (AS101) sensitizes tumors to chemotherapy by inhibiting the tumor interleukin 10 autocrine loop. Cancer Res. 2004 Mar 1;64(5):1843-52.

[2]. Yona Kalechman, et al. Inhibition of interleukin-10 by the Immunomodulator AS101 Reduces Mesangial Cell Proliferation in Experimental Mesangioproliferative Glomerulonephritis: Association With Dephosphorylation of STAT3. J Biol Chem. 2004 Jun 4;279(23):24724-32.

[3]. Diamond Ling, et al. The Tellurium Redox Immunomodulating Compound AS101 Inhibits IL-1β-activated Inflammation in the Human Retinal Pigment Epithelium. Br J Ophthalmol. 2013 Jul;97(7):934-8.

[4]. Yafit Hachmo, et al. The Small Tellurium Compound AS101 Ameliorates Rat Crescentic Glomerulonephritis: Association With Inhibition of Macrophage Caspase-1 Activity via Very Late Antigen-4 Inactivation. Front Immunol. 2017 Mar 7;8:240.

CAIndexNames:

Tellurate(1-), trichloro[1,2-ethanediolato(2-)-κO1,κO2]-, ammonium (1:1), (SP-5-22)-

SMILES:

[Cl-][Te+4]1([Cl-])([Cl-])[O-]CC[O-]1.[NH4+]

Caution: Product has not been fully validated for medical applications. For research use only.

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