

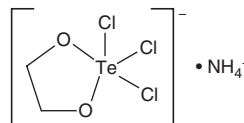
PRODUCT INFORMATION



AS-101

Item No. 21443

CAS Registry No.: 106566-58-9
Formal Name: (SP-5-22)-trichloro[1,2-ethanediolato(2-)- $\kappa O^1, \kappa O^2$]-tellurate(1-), monoammonium salt
MF: $C_2H_4Cl_3O_2Te \cdot NH_4$
FW: 312.0
Purity: $\geq 95\%$
Supplied as: A crystalline solid
Storage: $-20^\circ C$
Stability: ≥ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

AS-101 is supplied as a crystalline solid. A stock solution may be made by dissolving the AS-101 in the solvent of choice, which should be purged with an inert gas. AS-101 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of AS-101 in these solvents is approximately 30 mg/ml. AS-101 is slightly soluble in ethanol.

AS-101 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, AS-101 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. AS-101 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

AS-101 is an immunomodulator.¹ It inhibits IL-10 secretion from and cell proliferation of IL-10-secreting human stomach adenocarcinoma and glioblastoma multiforme (GBM) cells when used at concentrations ranging from 0.5 to 2.5 $\mu g/ml$, an effect that can be blocked by the addition of recombinant IL-10. It reverses IL-10-induced increases in phosphorylated Stat3 and reduces the expression of Bcl-2 in B16 murine melanoma cells. AS-101 sensitizes GBM cells to paclitaxel (Item No. 10461), doxorubicin (Item No. 15007), and 5-fluorouracil (5-FU; Item No. 14416) *in vitro* and to paclitaxel in a GBM mouse xenograft model when administered at a dose of 0.5 mg/kg per day. AS-101 (1 mg/kg) also prevents infiltration of CD49d⁺ cells and decreases the expression of IL-6, TNF- α , IL-1 β , and MCP-1 in the spinal cord, as well as delays onset and slows the progression of symptoms in a mouse model of experimental autoimmune encephalomyelitis (EAE).²

References

1. Sredni, B., Weil, M., Khomenok, G., *et al.* Ammonium trichloro(dioxoethylene-o,o')tellurate (AS101) sensitizes tumors to chemotherapy by inhibiting the tumor interleukin 10 autocrine loop. *Cancer Res.* **64(5)**, 1843-1852 (2004).
2. Lee, J.H., Halperin-Sheinfeld, M., Baatar, D., *et al.* Tellurium compound AS101 ameliorates experimental autoimmune encephalomyelitis by VLA-4 inhibition and suppression of monocyte and T cell infiltration into the CNS. *Neuromolecular Med.* **16(2)**, 292-307 (2014).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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