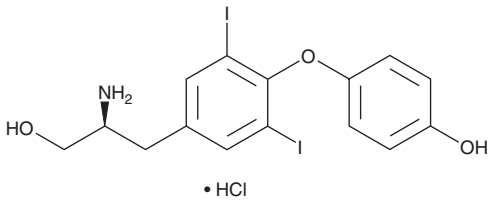
PRODUCT INFORMATION

T2AA (hydrochloride)

Item No. 21921

CAS Registry No.:	2138331-07-2
Formal Name:	βS-amino-4-(4-hydroxyphenoxy)-3,5-diiodo-benzenepropanol, monohydrochloride
Synonym:	T2-amino Alcohol
MF:	$C_{15}H_{15}I_2NO_3$ • HCl
FW:	547.6
Purity:	≥95%
UV/Vis.:	λ_{max}: 229 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



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

Laboratory Procedures

T2AA (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the T2AA (hydrochloride) in the solvent of choice, which should be purged with an inert gas. T2AA (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of T2AA (hydrochloride) in these solvents is approximately 30 mg/ml.

T2AA (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, T2AA (hydrochloride) should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. T2AA (hydrochloride) has a solubility of approximately 0.11 mg/ml in a 1:8 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

T2AA is an inhibitor of proliferating cell nuclear antigen (PCNA).[1] It inhibits protein-protein interactions between PCNA and a PIP-box-containing peptide (IC_{50} = 1 µM) and full-length p21 as well as reduces cellular colocalization of PCNA and DNA polymerase δ. T2AA inhibits DNA replication and cell growth in U2OS and HeLa cells in a concentration-dependent manner and induces cell cycle arrest at the S phase when used at a concentration of 20 µM. It also increases DNA double strand break formation induced by cisplatin (Item No. 13119) in a neutral comet assay and cisplatin-induced inhibition of clonogenic survival in HeLa and U2OS cells.[2]

References

1. Punchihewa, C., Inoue, A., Hishiki, A., *et al.* Identification of small molecule proliferating cell nuclear antigen (PCNA) inhibitor that disrupts interactions with PIP-box proteins and inhibits DNA replication. *J. Biol. Chem.* **287(17)**, 14289-14300 (2012).
2. Inoue, A., Kikuchi, S., Hishiki, A., *et al.* A small molecule inhibitor of monoubiquitinated proliferating cell nuclear antigen (PCNA) inhibits repair of interstrand DNA cross-link, enhances DNA double strand break, and sensitizes cancer cells to cisplatin. *J. Biol. Chem.* **289(10)**, 7109-7120 (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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