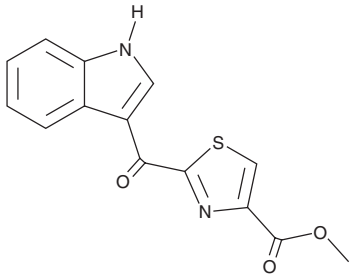
PRODUCT INFORMATION

ITE

Item No. 25355

CAS Registry No.:	448906-42-1
Formal Name:	2-(1H-indol-3-ylcarbonyl)-4-thiazolecarboxylic acid, methyl ester
MF:	$C_{14}H_{10}N_2O_3S$
FW:	286.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 211, 273, 279, 356 nm
Supplied as:	A 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

ITE is supplied as a solid. A stock solution may be made by dissolving the ITE in the solvent of choice, which should be purged with an inert gas. ITE is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of ITE in these solvents is approximately 10 and 20 mg/ml.

ITE is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ITE should first be dissolved in DMF and then diluted with the aqueous buffer of choice. ITE has a solubility of approximately 0.14 mg/ml in a 1:6 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

ITE is an endogenous aryl hydrocarbon receptor (AhR) agonist.[1] It binds to AhR (K_d = 65 nM) and induces AhR-dependent transcription in luciferase reporter assays when used at a concentration of 0.01 µM. ITE (1 µM) inhibits anti-CD40- and IL-4-induced differentiation of isolated mouse splenic B cells, as well as proliferation and migration of SKOV3 ovarian cancer cells.[2,3] *In vivo*, ITE (200 µg/animal, i.p.) reduces retinal detachment and ocular inflammatory cell infiltration in a mouse model of experimental autoimmune uveitis induced by complete Freund's adjuvant (CFA) and *M. tuberculosis*.[4] ITE (80 mg/kg, i.p.) reduces tumor growth by 39% in an OVCAR-3 mouse xenograft model.[3]

References

1. Henry, E.C., Bemis, J.C., Henry, O., *et al.* A potential endogenous ligand for the aryl hydrocarbon receptor has potent agonist activity in vitro and in vivo. *Arch. Biochem. Biophys.* **450(1)**, 67-77 (2006).
2. Yoshida, T., Katsuya, K., Oka, T., *et al.* Effects of AhR ligands on the production of immunoglobulins in purified mouse B cells. *Biomed. Res.* **33(2)**, 67-74 (2012).
3. Wang, K., Li, Y., Jiang, Y.-Z., *et al.* An endogenous aryl hydrocarbon receptor ligand inhibits proliferation and migration of human ovarian cancer cells. *Cancer Lett.* **340(1)**, 63-71 (2013).
4. Nugent, J.F., Shi, G.S., Vistica, B.P., *et al.* ITE, a novel endogenous nontoxic aryl hydrocarbon receptor ligand, efficiently suppresses EAU and T-cell–mediated immunity. *Invest. Ophthalmol. Vis. Sci.* **54(12)**, 7463-7469 (2013).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM