

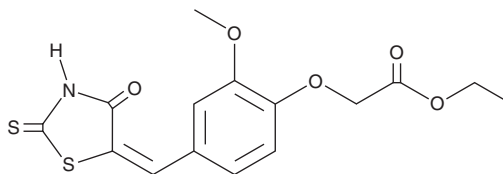
PRODUCT INFORMATION



IMR-1

Item No. 27920

CAS Registry No.: 310456-65-6
Formal Name: 2-[2-methoxy-4-[(4-oxo-2-thioxo-5-thiazolidinylidene)methyl]phenoxy]-acetic acid, ethyl ester
Synonym: Inhibitor of Mastermind Recruitment-1
MF: $C_{15}H_{15}NO_5S_2$
FW: 353.4
Purity: $\geq 95\%$ (mixture of isomers)
UV/Vis.: λ_{max} : 260, 287, 392 nm
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

IMR-1 is supplied as a crystalline solid. A stock solution may be made by dissolving the IMR-1 in the solvent of choice, which should be purged with an inert gas. IMR-1 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of IMR-1 in these solvents is approximately 25 and 30 mg/ml, respectively.

IMR-1 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, IMR-1 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. IMR-1 has a solubility of approximately 0.20 mg/ml in a 1:4 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

IMR-1 is an inhibitor of mastermind-like 1 (Maml1) recruitment to chromatin.¹ It binds to the intracellular domain of Notch ($K_D = 11 \mu M$) and prevents transcription of Notch target genes by inhibiting the recruitment of Maml1, but not Notch1, to chromatin. It inhibits colony formation in the Notch-dependent cell lines SUM149, SUM159, and HT-1080, but not the Notch-independent cell lines T47D, MCF-7, and H23 when used at concentrations of 15 and 45 μM . IMR-1 (15 mg/kg) decreases the expression of the Notch target genes *HES1*, *HEY1*, and *NOTCH3* and reduces tumor growth in a patient-derived esophageal adenocarcinoma mouse xenograft model.

Reference

1. Astudillo, L., Da Silva, T.G., Wang, Z., *et al.* The small molecule IMR-1 inhibits the Notch transcriptional activation complex to suppress tumorigenesis. *Cancer Res.* **76**(12), 3593-3603 (2016).

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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