SZABO SCANDIC

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Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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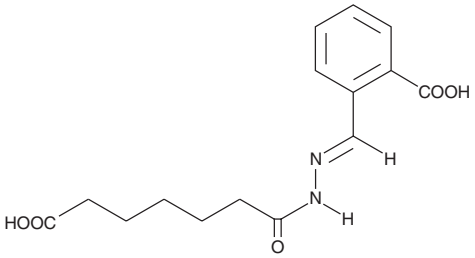
PRODUCT INFORMATION

IDE1

Item No. 13816

CAS Registry No.:	1160927-48-9
Formal Name:	1-[2-[(2-carboxyphenyl)methylene] hydrazide]-heptanedioic acid
MF:	$C_{15}H_{18}N_2O_5$
FW:	306.3
Purity:	≥95%
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥2 years



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

Laboratory Procedures

IDE1 is supplied as a crystalline solid. A stock solution may be made by dissolving the IDE1 in the solvent of choice, which should be purged with an inert gas. IDE1 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of IDE1 in these solvents is approximately 0.1, 25, and 30 mg/ml, respectively.

IDE1 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, IDE1 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. IDE1 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

IDE1 is a small molecule capable of inducing definitive endoderm from embryonic stem cells. It has been shown to induce the differentiation of Sox17+/FoxA2+-expressing pancreatic progenitors from human and mouse embryonic stems cells (EC_{50} = 125.5 nM *in vitro*) by activating the TGF-β signaling pathway.[1] IDE1-derived endodermal cells injected into E8.75 mouse embryos *ex vivo* have been shown to incorporate into the developing gut tube, contributing to its formation.[1] Furthermore, when treated with either indolactam V (Item No. 14647) or a standard regimen of the growth factor FGF-10, retinoic acid, and hedgehog inhibitors, IDE1-induced endodermal cells can form Pdx1-expressing pancreatic progenitors.[1]

Reference

1. Borowiak, M., Maehr, R., Chen, S., *et al.* Small molecules efficiently direct endodermal differentiation of mouse and human embryonic stem cells. *Cell Stem Cell* **4(4)**, 348-358 (2009).

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