

# Small Molecules

IDE1

Activin/BMP/TGF- $\beta$  pathway activator

Catalog # 72512  
72514

1 mg  
5 mg



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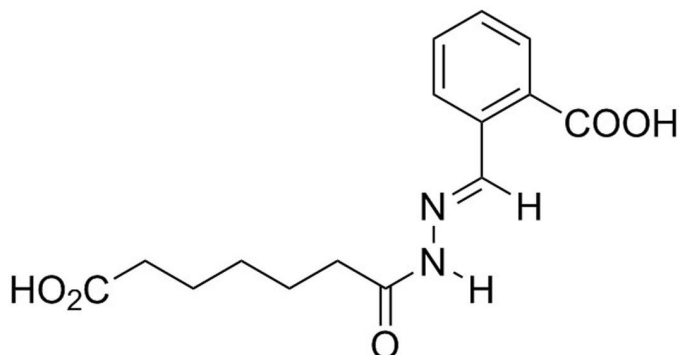
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## Product Description

Inducer of definitive endoderm 1 (IDE1) induces differentiation of mouse or human embryonic stem (ES) cells by activating SMAD2 phosphorylation and NODAL expression (Borowiak et al.). At EC<sub>50</sub> = 125 nM, SOX17 expression was induced in mouse ES cells.

Molecular Name:	IDE1
Alternative Names:	Not applicable
CAS Number:	1160927-48-9
Chemical Formula:	C <sub>15</sub> H <sub>18</sub> N <sub>2</sub> O <sub>5</sub>
Molecular Weight:	306.3 g/mol
Purity:	≥ 95%
Chemical Name:	1-[2-[(2-carboxyphenyl)methylene]hydrazide]-heptanedioic acid
Structure:	



## Properties

Physical Appearance:	A crystalline solid
Storage:	Product stable at -20°C as supplied. Protect from prolonged exposure to light. Stable as supplied for 12 months from date of receipt.
Solubility:	· Absolute ethanol ≤ 320 μM · DMSO ≤ 80 mM For example, to prepare a 10 mM stock solution in DMSO, resuspend 1 mg in 326 μL of fresh DMSO.

Prepare stock solution fresh before use. Information regarding stability of small molecules in solution has rarely been reported, however, as a general guide we recommend storage in DMSO at -20°C. Aliquot into working volumes to avoid repeated freeze-thaw cycles. The effect of storage of stock solution on compound performance should be tested for each application.

Compound has low solubility in aqueous media. For use as a cell culture supplement, stock solution should be diluted into culture medium immediately before use. Avoid final DMSO concentration above 0.1% due to potential cell toxicity.

## Published Applications

### DIFFERENTIATION

- Induces differentiation of mouse or human ES cells to definitive endoderm in the absence of Activin A, NODAL, or feeder cells (Borowiak et al.).

## References

Borowiak M et al. (2009) Small molecules efficiently direct endodermal differentiation of mouse and human embryonic stem cells. *Cell Stem Cell* 4(4): 348–58.

## Related Small Molecules

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