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# Produktinformation

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

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

## Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

## Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand


**SZABO-SCANDIC HandelsgmbH**

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

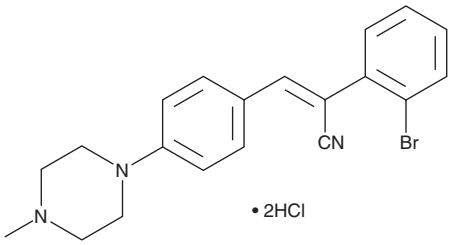
linkedin.com/company/szaboscandic

# PRODUCT INFORMATION

## DG-172 (hydrochloride)

*Item No. 19128*

| | |
|---|---|
| **CAS Registry No.:** | 1361504-77-9 |
| **Formal Name:** | 2-bromo-αZ-[[4-(4-methyl-1-piperazinyl)phenyl]methylene]-benzeneacetonitrile, dihydrochloride |
| **MF:** | $C_{20}H_{20}BrN_3 \bullet 2HCl$ |
| **FW:** | 455.2 |
| **Purity:** | ≥98% |
| **UV/Vis.:** | $\lambda_{max}$: 241, 348 nm |
| **Supplied as:** | A crystalline solid |
| **Storage:** | -20°C |
| **Stability:** | As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly |




### Laboratory Procedures

DG-172 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the DG-172 (hydrochloride) in the solvent of choice. DG-172 (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of DG-172 (hydrochloride) in ethanol is approximately 20 mg/ml and approximately 25 mg/ml in DMSO and DMF.

DG-172 (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, DG-172 (hydrochloride) should first be dissolved in DMF and then diluted with the aqueous buffer of choice. DG-172 (hydrochloride) 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

DG-172 is an orally available inverse agonist of PPARβ/δ ($IC_{50}$ = 27 nM), down-regulating transcription of ANGPTL4 in mouse myoblasts ($IC_{50}$ = 9.5 nM).[1] It alters the differentiation of bone marrow cells, augmenting GM-CSF-induced development into subsets of mature and immature dendritic cells.[2] Inverse agonists of PPARβ/δ, including DG-172, inhibit cancer cell invasion through suppression of ANGPTL4 expression.[3]

### References


1. Lieber, S., Scheer, F., Meissner, W., *et al.* (Z)-2-(2-bromophenyl)-3-{[4-(1-methyl-piperazine)amino]phenyl} acrylonitrile (DG172): An orally bioavailable PPARβ/δ-selective ligand with inverse agonistic properties. *J. Med. Chem.* **55(6)**, 2858-2868 (2012).
2. Lieber, S., Scheer, F., Finkernagel, F., *et al.* The inverse agonist DG172 triggers a PPARβ/δ-independent myeloid lineage shift and promotes GM-CSF/IL-4-induced dendritic cell differentiation. *Mol. Pharmacol.* **87(2)**, 162-173 (2015).
3. Adhikary, T., Brandt, D.T., Kaddatz, K., *et al.* Inverse PPARβ/δ agonists suppress oncogenic signaling to the ANGPTL4 gene and inhibit cancer cell invasion. *Oncogene* **32(44)**, 5241-5252 (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