

Hello Bio, Inc.
304 Wall St., Princeton, NJ 08540 USA

T. 609-683-7500
F. 609-228-4994

customercare-usa@hellobio.com



DATASHEET

PAC 1

Product overview

| | |
|-------------------|---------------------------------|
| Name | PAC 1 |
| Cat No | HB1291 |
| Biological action | Activator |
| Purity | >98% |
| Description | Pro caspase-activating compound |

Biological Data

| | |
|------------------------|---|
| Biological description | Pro caspase-activating compound. Chelates inhibitory zinc ions and activates pro caspase-3 to caspase-3 ($EC_{50} = 0.22 \mu M$). Activates pro caspase-7 ($EC_{50} = 4.5 \mu M$). No effect at low pH as pro caspase autoactivates. Causes Ero1 α -dependent calcium leakage from the endoplasmic reticulum to mitochondria. Shows apoptotic and anti-cancer actions. |
|------------------------|---|

Solubility & Handling

| | |
|----------------------|---|
| Storage instructions | +4°C |
| Important | This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use. |

Chemical Data

| | |
|--------------------|---|
| Chemical name | 4-(Phenylmethyl)-1-piperazineacetic acid [[2-hydroxy-3-(2-propenyl)phenyl]methylene]hydrazide |
| Molecular Weight | 392.5 |
| Chemical structure | |
| Molecular Formula | C ₂₃ H ₂₈ N ₄ O ₂ |
| CAS Number | 315183-21-2 |
| PubChem identifier | 9675990 |
| SMILES | O=C(N/N=C/C3=CC=CC(CC=C)=C3O)CN(CC2)CCN2CC1=CC=CC=C1 |
| InChiKey | YQNRVGJCPNMKT-LFVJCYFKSA-N |

References

Pro caspase-3 activation as an anti-cancer strategy: structure-activity relationship of pro caspase-activating compound 1 (PAC-1) and its cellular co-localization with caspase-3.

Peterson QP *et al* (2009) J Med Chem 52(18)
PubMedID 19708658

Small-molecule activation of pro caspase-3 to caspase-3 as a personalized anticancer strategy.

Putt KS *et al* (2006) Nat Chem Biol 2(10)
PubMedID 16936720

ER α -dependent endoplasmic reticulum-mitochondrial calcium flux contributes to ER stress and mitochondrial

permeabilization by procaspase-activating compound-1 (PAC-1).

Seervi M *et al* (2013) Cell Death Dis 4

PubMedID

[24357799](#)
