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# Data Sheet

Global Supplier of Chemical Probes, Inhibitors & Agonists.

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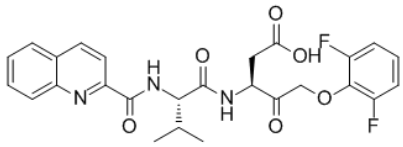
|---|---|---|
| **Product Name** | : | Q-VD-Oph |
| **Cat. No.** | : | PC-42968 |
| **CAS No.** | : | 1135695-98-5 |
| **Molecular Formula** | : | $C_{26}H_{25}F_2N_3O_6$ |
| **Molecular Weight** | : | 513.49 |
| **Target** | : | Caspase |
| **Solubility** | : | DMSO: ≥ 25 mg/mL |



## Biological Activity

Q-VD-Oph is a potent **pan-caspase** inhibitor, inhibits human recombinant caspase-7 with IC50 of 48 nM in cell-free assay, also inhibits caspase -1, 3, 8, 9, 10, and 12 with IC50 of 25-400 nM.
Q-VD-Oph reduces doxorubicin-induced caspase-3 activation, increases expression of p21/WAF1 and senescence -associated -beta-galactosidase activity, but does not alter Akt activation.
Q-VD-Oph is significantly more effective in preventing apoptosis than the widely used inhibitors, ZVAD-fmk and Boc-D-fmk.
Q-VD-Oph prevents activated caspase-7 and caspase-cleaved fragments of tau in the TgCRND8 brain, as well as pathology associated with TgCRND8 mice.

## References


Caserta TM, et al. ***Apoptosis.*** 2003 Aug;8(4):345-52.

Rebbaa A, et al. ***Oncogene.*** 2003 May 8;22(18):2805-11.

Rohn TT, et al. ***Int J Clin Exp Med.*** 2009 Nov 5;2(4):300-8.

Renolleau S, et al. ***J Neurochem.*** 2007 Feb;100(4):1062-71.





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