

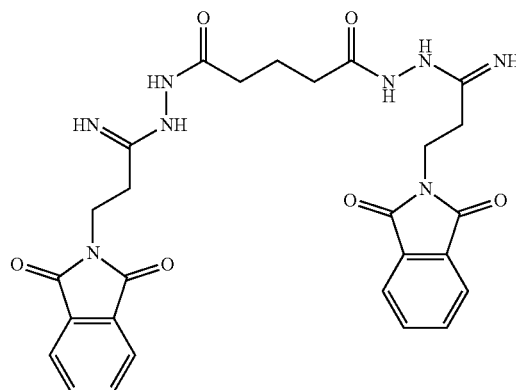
- kinase C delta by an ICE/CED 3-like protease induces characteristics of apoptosis. *J Exp Med* 184, 2399-2404
- [0164] 5. Kohtz, J. D., Jamison, S. F., Will, C. L., Zuo, P., Luhrmann, R., Barcia-Blanco, M. A., and Manley, J. L. (1994) Protein-protein interactions and 5'-splice-site recognition in mammalian mRNA precursors. *Nature* 368, 119-124
- [0165] 6. Anantharam, V., Kitazawa, M., Wagner, J., Kaul, S., and Kanthasamy, A. G. (2002) Caspase-3-dependent proteolytic cleavage of protein kinase Cdelta is essential for oxidative stress-mediated dopaminergic cell death after exposure to methylcyclopentadienyl manganese tricarbonyl. *J Neurosci* 22, 1738-1751
- [0166] 7. Reyland, M. E., Anderson, S. M., Matassa, A. A., Barzen, K. A., and Quissell, D. O. (1999) Protein kinase C delta is essential for etoposide-induced apoptosis in salivary gland acinar cells. *J Biol Chem* 274, 19115-19123
- [0167] 8. Denning, M. F., Wang, Y., Tibudan, S., Alkan, S., Nickoloff, B. J., and Qin, J. Z. (2002) Caspase activation and disruption of mitochondrial membrane potential during UV radiation-induced apoptosis of human keratinocytes requires activation of protein kinase C. *Cell Death Differ* 9, 40-52
- [0168] 9. Sitailo, L., Tibudan, S., and Denning, M. F. (2004) Bax activation and induction of apoptosis in human keratinocytes by protein kinase C delta catalytic domain. *Jour of Investigative Dermatology*, 1-10
- [0169] 10. Sitailo, L. A., Tibudan, S. S., and Denning, M. F. (2006) The protein kinase C delta catalytic fragment targets Mcl-1 for degradation to trigger apoptosis. *J Biol Chem* 281, 29703-29710
- [0170] 11. Sakurai, Y., Onishi, Y., Tanimoto, Y., and Kizaki, H. (2001) Novel protein kinase C delta isoform insensitive to caspase-3. *Biol Pharm Bull* 24, 973-977
- [0171] 12. Kawaguchi, T., Niino, Y., Ohtaki, H., Kikuyama, S., and Shioda, S. (2006) New PKCdelta family members, PKCdeltaIV, deltaV, deltaVI, and deltaVII are specifically expressed in mouse testis. *FEBS Lett* 580, 2458-2464
- [0172] 13. Ueyama, T., Ren, Y., Ohmori, S., Sakai, K., Tamaki, N., and Saito, N. (2000) cDNA cloning of an alternative splicing variant of protein kinase C delta (PKC deltaIII), a new truncated form of PKCdelta, in rats. *Biochem Biophys Res Commun* 269, 557-563
- [0173] 14. Patel, N. A., Song, S., and Cooper, D. R. (2006) PKCdelta alternatively spliced isoforms modulate cellular apoptosis in retinoic-induced differentiation of human NT2 cells and mouse embryonic stem cells. *Gene Expression* 13, 73-84
- [0174] 15. Jiang, K., Apostolatos, A. H., Ghansah, T., Watson, J. E., Vickers, T., Cooper, D. R., Epling-Burnette, P. K., and Patel, N. A. (2008) Identification of a Novel Antiapoptotic Human Protein Kinase C delta Isoform, PKCdeltaVII in NT2 Cells. *Biochemistry* 47, 787-797
- [0175] 16. Blass, M., Kronfeld, I., Kazimirsky, G., Blumberg, P. M., and Brodie, C. (2002) Tyrosine phosphorylation of protein kinase Cdelta is essential for its apoptotic effect in response to etoposide. *Mol Cell Biol* 22, 182-195
- [0176] 17. Brodie, C., and Blumberg, P. M. (2003) Regulation of cell apoptosis by protein kinase c delta. *Apoptosis* 8, 19-27
- [0177] 18. Patel, R. S., Carter, G., Cooper, D. R., Apostolatos, H., and Patel, N. A. (2014) Transformer 2beta homolog (*Drosophila*) (TRA2B) regulates protein kinase

C deltaI (PKCdeltaI) splice variant expression during 3T3L1 preadipocyte cell cycle. *J Biol Chem* 289, 31662-31672

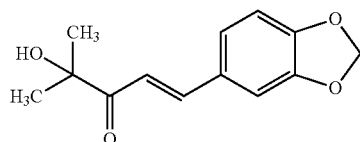
1. A method of treating a PKCδI disease or disorder in a subject in need thereof, the method comprising:

administering a formulation comprising an effective amount of a PKCδI inhibitor to the subject in need thereof, wherein the PKCδI inhibitor is a compound having a structure as in any one of Formulas 1 and 3-7

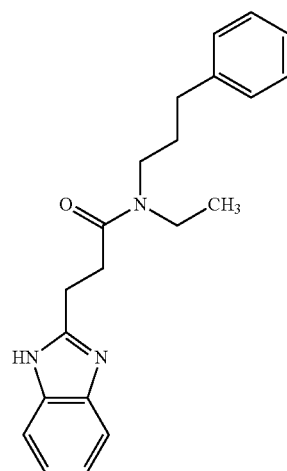
Formula 1



Formula 3



Formula 4



Formula 5

