

Novel Anti-Proliferative and Anti-Cancer Compound

Researchers at the University of South Florida text have identified a novel antiproliferative and anticancer compound that targets protein kinase C iota in cancer.

Cancer is one of the major causes of death in the industrialized world. Neuroblastoma is the most common extra cranial tumor diagnosed in children and in infants. In North America, breast carcinoma is the most common cancer in women and the second cause of cancer death. Despite new anticancer drugs that enter the market and the success of these products in treating cancer, it is therefore evident that new strategies are needed to combat the disease.

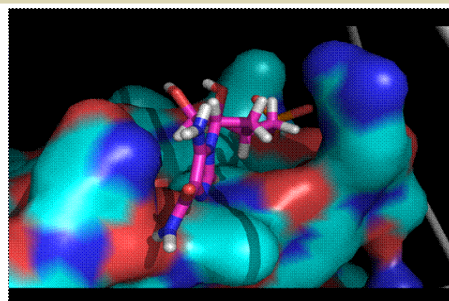
University of South Florida inventors have identified ICA-1 as a novel chemotherapeutic agent for neuroblastoma and breast cancer. PKC- ι has long been implicated in carcinogenesis. This compound blocks catalytic activity by binding to a specific region of amino acids in protein kinase C-iota (PKC- ι).

ICA-1 offers a unique opportunity to develop a therapeutic agent with a mechanism of action that has not been previously exploited in cancer treatment and prevention.

ADVANTAGES:

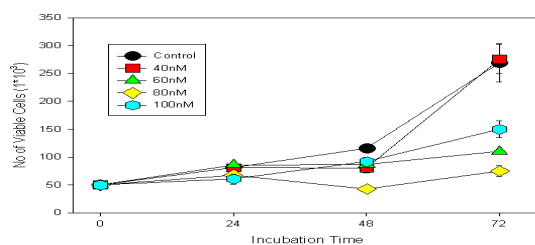
- Inhibit the enzyme protein kinase C-iota
- Validated in neuroblastoma and breast cancer models
- Effective in nanomolar range

Anti-Proliferative and Anti-Cancer Compound



Molecular docking of ICA-1 on amino acid residues 469 - 475 of the catalytic domain of PKC- ι

Effect of ICA-1 on BE(2)-C (without drug change)



Neuroblastoma cells treated with vehicle control

Tech ID #07B094 & 10A080

Patent #: [8,461,192](#) & [9,351,981](#)

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