FOXO1 Inhibition with AS1842856 as a Chemotherapeutic for Glioblastoma Multiforme and Basal-like Breast Cancer

The present technology is a targeted therapy for aggressive cancers including basal-like cancer (BBC) and glioblastoma multiforme (GBM). Specifically, treatment with AS1842856 was found to induce cell death in a set of cancer lines BBC: BT 549 and MDA-MB-468, as well as GBM: LN229, DBTRG, A172 and LN18.

Problem

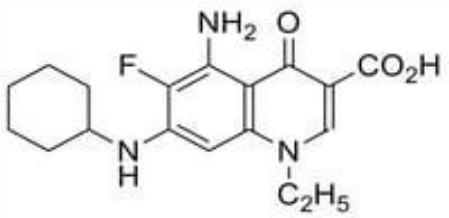
A poor survival rate is associated with aggressive cancers like BBC and GBM. Currently, there is a need for technology that effectively treats such cancers.

Solution

A set of cancer lines were treated with AS1842856 as therapy for BBC and GBM. Results showed evidence of reduced cell numbers, induction of apoptotic genes, and induction of apoptosis by membrane permeability (PI staining) and membrane depolarization (Annexin V-FITC staining) by flow cytometric analyses.

The University of Texas Rio Grande Valley
Office of Technology Commercialization

Structure formula image of FOXO1 inhibitor, AS1842856- Calbiochem



Value Proposition

FOXO1 inhibition is proposed as a targeted therapy to treat aggressive cancers like BBC and GBM. The therapy is effective by reducing cell number, induction of apoptotic genes, and induction of apoptosis.

Competitive Advantages

- Treatment of a series of cancer cell lines including BT 549, MDA-MB-468, DBTRG, A 172,LN 18, HCT116, and SW480 led to reduced colony formation and apoptotic gene induction.
- Treatment induced apoptosis as assessed by flow cytometric analysis in BT549 and LN229 cancer cell lines.

Status of Development

- Prototyping and characterization

IP Status

- Patent protection filed
- Licensing Available

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