Novel and Specific Inhibitors of p21

Tech ID: 22303 / UC Case 2012-486-0

ABSTRACT

Small molecule inhibitors of the cyclin kinase inhibitor, p21, specifically affect p21 levels and can potentially be used in treating cancer.

FULL DESCRIPTION

Cyclin kinase inhibitor p21 promotes cell survival by preventing the apoptosis of cells. Thus, this protein is the cancer cell's method of defeating attempts to kill it, as by chemotherapy, a situation which is clearly harmful for the cancer patient.

Using drug design, researchers at University of California have discovered several specific inhibitors of p21 that are more stable and more effective than the previously discovered small molecule p21 inhibitors. Inhibiting the levels of p21 diminishes its anti-apoptotic effect on cells and makes cells more amenable to cell death.

APPLICATIONS

- Sensitizers of chemotherapy in kidney as well as other cancers
- Increase the ability of conventional chemotherapy treatment

FEATURES/BENEFITS

- Interferes with cell death
- Small molecule
- Stability
- Oral delivery

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	10,449,182	10/22/2019	2012-486

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

- Method of Preventing Bone Loss and Periodontal Disease
- Multi-Target Inhibitors for Pain Treatment

CONTACT

Amir J. Kallas
ajkallas@ucdavis.edu
tel: .

INVENTORS

- Hammock, Bruce D.
- Hwang, Sung H.
- Inoue Wettersten, Hiromi
- Weiss, Robert H.

OTHER INFORMATION

KEYWORDS

p21 inhibitors, cancer therapy, small molecule cancer therapy, kidney cancer, cancer

CATEGORIZED AS

- **Medical**
  - Disease: Cancer
  - Therapeutics

RELATED CASES

2012-486-0

- Improved Dioxin Detection and Measurement
- Detection System for Small Molecules
- Small Molecule sEH Inhibitors to Treat Alpha-Synuclein Neurodegenerative Disorders
- Soluble Epoxide Hydrolase-Conditioned Stem Cells for Cardiac Cell-Based Therapy
- Beneficial Effects of Novel Inhibitors of Soluble Epoxide Hydrolase as Adjuvant Treatment for Cardiac Cell-Based Therapy
- Antibodies: Bacillus Delta Endotoxin PAbs
- Antibodies: Bromacil Herbicide PAbs
- Novel Neuropathy Treatment Using Soluble Epoxide Inhibitors
- Antibodies for Pseudomonas (P.) aeruginosa
- Antibodies: Urea Herbicide Pabs
- Bioavailable Dual sEH/PDE4 Inhibitor for Inflammatory Pain
- Chemical Synthesis of Lipid Mediator 22-HDoHE and Structural Analogs
- Antibodies: Triazine Herbicide Pabs
- Optimized Non-Addictive Biologics Targeting Sodium Channels Involved In Pain Signaling
- Soluble Epoxide Hydrolase Inhibitors For The Treatment Of Arrhythmogenic Cardiomyopathy And Related Diseases
- A New Pharmaceutical Therapy Target for Depression and Other Central Nervous System Diseases

University of California, Davis
Technology Transfer Office
1 Shields Avenue, Mrak Hall 4th Floor,
Davis,CA 95616

Tel:
530.754.8649
techtransfer@ucdavis.edu
https://research.ucdavis.edu/technology-transfer/
Fax:
530.754.7620