



Compound 7: A Potent and Specific Jak2 Inhibitor

Scientists often rely on the use of an inhibitor to study the interrelation between the enzyme Jak2 and a variety of diseases including cancer, diabetes, Alzheimer's, and hypertension. The University of Florida is seeking companies interested in commercializing a potent and specific Jak2 inhibitor. Jak2 plays an important role in cell development and growth by activating and deactivating other proteins. The only pharmacological Jak2 inhibitor currently available is AG490. While AG490 inhibits Jak2, it also inhibits other tyrosine kinases, making Jak2 studies difficult. Researchers at the University of Florida have identified "Compound 7" as an effective and specific Jak2 inhibitor. This unique compound will allow researchers to specifically inhibit Jak2, which in turn may provide a better understanding of how Jak2 correlates with these diseases.

Applications

Effective and specific inhibitor of Jak2 for the study of various diseases

Advantage

Compound 7 specifically inhibits Jak2, permitting more accurate and more conclusive studies of the correlation between Jak2 and certain diseases

The Technology

Jak2 functions as a non-receptor member of the Janus kinase (Jak) family of tyrosine kinases. It has been implicated in certain types of cancer, diabetes and cardiovascular diseases. Once activated, Jak2 phosphorylates its substrate proteins, which in turn induce gene transcription. The novel *Compound 7* inhibits phosphorylation of Jak2 in both a time- and dose-dependent fashion. Unlike currently available Jak2 pharmacological inhibitors such as AG490, *Compound 7* specifically inhibits Jak2.

Compound 7: A Potent and Specific Jak2 Inhibitor

The Inventors



Dr. Peter Sayeski, Assistant Professor at the University of Florida Department of Physiology and Functional Genomics, began his academic career at UC, Berkeley where he earned his bachelor's degree in Physiology. He received his doctoral degree in Physiology and Biophysics from the University of Alabama at Birmingham, and completed a post-doctoral fellowship at Emory University School of Medicine. Dr. Sayeski's research has been supported by grants from the American Heart Association, Howard Hughes Medical Institute, and the National Institutes of Health.

Eric Sandberg (not pictured) is completing his graduate work in the Interdisciplinary Program in Biomedical Sciences, Department of Pharmacology and Therapeutics, University of Florida College of Medicine, under Dr. Sayeski's mentorship.

contact

Elizabeth Garami
University of Florida
Office of Technology Licensing
352/392-8929 • email: egarami@ufl.edu

Reference UF #11406



UNIVERSITY OF
FLORIDA

Office of Technology Licensing

*Facilitating Technology Transfer
To Serve Faculty and Community*

www.otl.ufl.edu