SUPPORTING INFORMATION

Discovery of Novel and Potent Tacrine Derivatives as CDK2 Inhibitors

Yaoguang Huang a, Deping Li c, Chang Xu d, Chengze Zhu d, Limeng Wu a, Shen Meiling f, Li Yue e, Xiaowen Jiang a, Xin Liu d, Wenwu Liu b*, and Qingchun Zhao b*

a School of Traditional Chinese Materia Medica, Shenyang Pharmaceutical University, Shenyang 110016, People’s Republic of China

b Department of Pharmacy, General Hospital of Northern Theater Command, Shenyang 110840, People’s Republic of China

c Department of Pharmacy, First Affiliated Hospital of Gannan Medical University, Ganzhou 341000, People’s Republic of China

d School of Life Sciences, Shenyang Pharmaceutical University, Shenyang 110016, People’s Republic of China

e School of Chemical Engineering, Sichuan University of Science & Engineering, 180 Xueyuan Street, Huixing Road, Zigong, Sichuan, 643000, China

f School of Life Sciences, Yunnan University, Kunming 650091, China

E-mail address: zhaqingchun1967@163.com (Q.C. Zhao), sunny961010@163.com (W.W. Liu)

1H NMR Spectra and 13C NMR Spectra of Representative Compounds.
$^1$H NMR spectrum of ZLHT-3 in Deuterium Oxide.

$^{13}$C NMR spectrum of ZLHT-3 in Deuterium Oxide.
\(^1\)H NMR spectrum of **ZLHT-4** in Deuterium Oxide.

\(^{13}\)C NMR spectrum of **ZLHT-4** in Deuterium Oxide.
\(^1\)H NMR spectrum of ZLHT-5 in Deuterium Oxide.

\(^1\)C NMR spectrum of ZLHT-5 in Deuterium Oxide.
$^1$H NMR spectrum of ZLHT-6 in Deuterium Oxide.

$^{13}$C NMR spectrum of ZLHT-6 in Deuterium Oxide.
$^1$H NMR spectrum of ZLHT-7 in Deuterium Oxide.

$^{13}$C NMR spectrum of ZLHT-7 in Deuterium Oxide.
$^1$H NMR spectrum of ZLHT-8 in Deuterium Oxide.

$^{13}$C NMR spectrum of ZLHT-8 in Deuterium Oxide.
$^1$H NMR spectrum of ZLHT-9 in Deuterium Oxide.

$^{13}$C NMR spectrum of ZLHT-9 in Deuterium Oxide.
$^1$H NMR spectrum of ZLHT-10 in Deuterium Oxide.

$^{13}$C NMR spectrum of ZLHT-10 in Deuterium Oxide.
$^1$H NMR spectrum of ZLHT-11 in DMSO-$d_6$.

$^{13}$C NMR spectrum of ZLHT-11 in DMSO-$d_6$. 
$^1$H NMR spectrum of ZLHT-12 in DMSO-$d_6$.

$^{13}$C NMR spectrum of ZLHT-12 in DMSO-$d_6$. 
$^1$H NMR spectrum of ZLHT-13 in DMSO-$d_6$.

$^{13}$C NMR spectrum of ZLHT-13 in DMSO-$d_6$. 
\(^1\)H NMR spectrum of **ZLHT-14** in Deuterium Oxide.

\(^{13}\)C NMR spectrum of **ZLHT-14** in Deuterium Oxide.
$^1$H NMR spectrum of ZLHT-15 in DMSO-$d_6$.  

$^{13}$C NMR spectrum of ZLHT-15 in DMSO-$d_6$.  

\[ \delta \]
$^1$H NMR spectrum of ZLHT-16 in Deuterium DMSO-$d_6$.

$^{13}$C NMR spectrum of ZLHT-16 in DMSO-$d_6$. 
$^1$H NMR spectrum of ZLHT-17 in DMSO-$d_6$.

$^{13}$C NMR spectrum of ZLHT-17 in DMSO-$d_6$. 
\( ^1H \) NMR spectrum of ZLHT-18 in Deuterium Oxide.

\( ^{13}C \) NMR spectrum of ZLHT-18 in Deuterium Oxide.
\(^1\)H NMR spectrum of ZLHT-19 in Deuterium Oxide.

\(^{13}\)C NMR spectrum of ZLHT-19 in Deuterium Oxide.
H NMR spectrum of ZLHT-20 in Deuterium Oxide.

$^{13}$C NMR spectrum of ZLHT-20 in Deuterium Oxide.
H NMR spectrum of **ZLHT-21** in DMSO-\textit{d}_6.

\textsuperscript{13}C NMR spectrum of **ZLHT-21** in DMSO-\textit{d}_6.