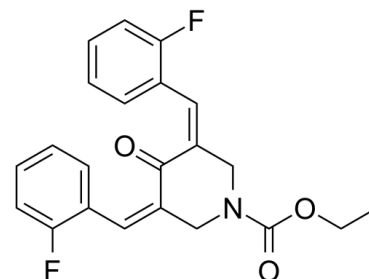


## Data Sheet

<b>Product Name:</b>	G5-7
<b>Cat. No.:</b>	CS-0086991
<b>CAS No.:</b>	939681-36-4
<b>Molecular Formula:</b>	C <sub>22</sub> H <sub>19</sub> F <sub>2</sub> NO <sub>3</sub>
<b>Molecular Weight:</b>	383.39
<b>Target:</b>	Apoptosis; JAK
<b>Pathway:</b>	Apoptosis; Epigenetics; JAK/STAT Signaling; Stem Cell/Wnt
<b>Solubility:</b>	DMSO : 83.33 mg/mL (217.35 mM; Need ultrasonic)



### BIOLOGICAL ACTIVITY:

G5-7, an orally active and allosteric **JAK2** inhibitor, selectively inhibits JAK2 mediated phosphorylation and activation of EGFR (Tyr<sup>1068</sup>) and STAT3 by binding to JAK2. G5-7 induces cell cycle arrest, apoptosis and possesses antiangiogenic effect. G5-7 has the potential for glioma study<sup>[1]</sup>. **In Vitro:** G5-7 (0-5 μM) inhibits EGFR tyrosine phosphorylation and downstream mTOR signaling and arrests the cell cycle at G2 phase<sup>[1]</sup>.

G5-7 does not directly inhibit EGFR activation<sup>[1]</sup>.

G5-7 (0-10 μM) comparably increases the abundance of markers (cleaved-PARP and caspase 3) of apoptosis in parental LN229 cells and U87MG/EGFRvIII cells<sup>[1]</sup>.

G5-7 interacts with full-length JAK2<sup>[1]</sup>.

G5-7 significantly inhibits EGFR Tyr1068 phosphorylation but had no effect on EGFR Tyr1045 phosphorylation<sup>[1]</sup>.

G5-7 downregulates the downstream signaling of JAK by mTOR<sup>[1]</sup>.

**In Vivo:** G5-7 (10 and 50 mg/kg, oral gavage) decreases VEGF secretion and exerts a potent antiangiogenic effect<sup>[1]</sup>.

### References:

[1]. Kunyan He, et al. Blockade of glioma proliferation through allosteric inhibition of JAK2. Sci Signal. 2013 Jul 9;6(283):ra55.

### CAIndexNames:

1-Piperidinecarboxylic acid, 3,5-bis[(2-fluorophenyl)methylene]-4-oxo-, ethyl ester

### SMILES:

O=C(N1CC(C(C(C1)=C)C2=CC=CC=C2F)=O)C/C3=CC=CC=C3F)OCC

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 610-426-3128

Fax: 888-484-5008

E-mail: sales@ChemScene.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA