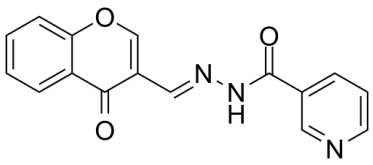
Data Sheet

Product Name:	STAT5-IN-1
Cat. No.:	CS-6859
CAS No.:	285986-31-4
Molecular Formula:	C16H11N3O3
Molecular Weight:	293.28
Target:	STAT
Pathway:	JAK/STAT Signaling; Stem Cell/Wnt
Solubility:	DMSO : 20 mg/mL (68.19 mM; Need ultrasonic); H2O : < 0.1 mg/mL (insoluble)



BIOLOGICAL ACTIVITY:

STAT5-IN-1 is a **STAT5** inhibitor with an **IC_{50}** of 47 μM for STAT5β isoform. IC50 & Target: IC50: 47 μM (STAT5β)[1] **In Vitro:** The signal transducer and activator of transcription 5 (STAT5) is a member of the STAT family of proteins, implicated in cell growth and differentiation. STAT5-IN-1 inhibits STAT5 by binding to the SH2 domain. The functions of the SH2 domains of STAT3, STAT1, and of the tyrosine kinase Lck are inhibited to a lesser extent (IC50>500 μM). STAT5-IN-1 block STAT5/STAT5 DNA binding in K562 nuclear extracts. Substitution of the hydrogen at C6 of the chromone ring by an ethyl group does not affect activity of STAT5-IN-1 against STAT5β, but leads to complete loss of selectivity against other STAT family members[1].

References:

[1]. Müller J, et al. Discovery of chromone-based inhibitors of the transcription factor STAT5. Chembiochem. 2008 Mar 25;9(5):723-7.

CAIndexNames:

3-Pyridinecarboxylic acid, 2-[(4-oxo-4H-1-benzopyran-3-yl)methylene]hydrazide

SMILES:

O=C(C1=CC=CN=C1)N/N=C/C2=COC3=CC=CC=C3C2=O

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

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