Product Data Sheet

Chemical Properties

Product Name: AG-18
Cas No.: 118409-57-7
M.Wt: 186.17
Formula: C₁₀H₆N₂O₂

Chemical Name: 2-[(3,4-dihydroxyphenyl)methylidene]propanedinitrile
Canonical SMILES: C₁=CC(=C(C=C₁C=C(C(N)C#N)O)O)

Solubility: ≥9.3mg/mL in DMSO
Storage: Store at -20°C

General tips: For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shopping Condition: Evaluation sample solution: ship with blue ice
All other available size: ship with RT, or blue ice upon request

Biological Activity

Targets: JAK/STAT Signaling
Pathways: EGFR

Description:
AG18 is an inhibitor of EGFR kinase with IC50 values of 35μM. [3]
AG18 acts as a general tyrosine kinase inhibitor to block tyrosine phosphorylation and events downstream of tyrosine phosphorylation. [1]
AG18 and AG10 reduced cellular ATP by 90% and increased the rate of oxygen consumption in the absence of the muscarinic agonist carbachol, indicating that these tyrphostins uncouple mitochondria. AG18 and AG10 blocked parotid phosphorylation events only at concentrations that reduced ATP content. AG18 and AG10 also activated AMPK and/or uncoupled mitochondria.
In granulosa-lutein cells, tyrphostin AG18 reversibly arrested the FSH-induced accumulation of P450scc mRNA with IC50 value of 15 μM. However, AG18 did not accelerate the mRNA degradation process. Moreover, even the extremely high levels of P450scc mRNA in granulosa-lutein cells, were not affected by the addition of AG18 in culture. Aromatase cytochrome P450 and 3 beta-hydroxysteroid dehydrogenase-I, were inhibited by AG18 at their mRNA levels. [2]

Reference:

Caution

FOR RESEARCH PURPOSES ONLY.
NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most ApexBio products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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