

## Product Data Sheet

Product Name: U 93631  
Cat. No.: GC11013

### Chemical Properties

Cas. No. 152273-12-6

Chemical Name tert-butyl 4,4-dimethyl-4,5-dihydroimidazo[1,5-a]quinoxaline-3-carboxylate

SMILES O=C(C(N=C1)=C2N1C3=CC=CC=C3NC2(C)C)OC(C)(C)C

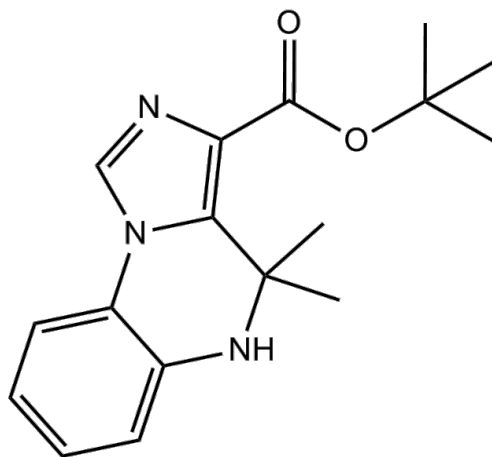
Formula  $C_{17}H_{21}N_3O_2$  M.Wt 299.37

Solubility DMF: 25 mg/ml, DMSO: 20 mg/ml, Ethanol: 20 mg/ml  
Storage Store at RT

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.

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

Structure



### Background

U93631 is a GABAA receptor ligand of novel chemical structure with IC<sub>50</sub> of 100 nM, and has been shown to induce a rapid, time-dependent decay of GABA-induced whole-cell Cl<sup>-</sup> currents in recombinant GABAA receptors. target: GABAA receptor. IC<sub>50</sub>: GABAA receptor. In vitro: In the presence of U93631 at 5 μM, the peak amplitude decreased as a function of GABA concentration,

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with the half-maximal inhibitory concentration being approximately 100 nM, which is close to the  $K_d$  for the high affinity GABA site (85 nM). It appears that the drug interacts with GABA-bound receptors (at least monoliganded) and accelerates receptor desensitization, rather than acting as an open channel blocker. [1]

### References:

[1]. Dillon, GH et al. U-93631 causes rapid decay of gamma-aminobutyric acid-induced chloride currents in recombinant rat gamma-aminobutyric acid type A receptors. *Molecular Pharmacology* October 1993, 44 (4) 860-865

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