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**Product Data Sheet**

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Product Name: RO 4938581

Cat. No.: GC31238

**Chemical Properties**

Cas. No. 883093-10-5

SMILES FC(C1=C2N(C3=CC=C(Br)C=C3C4=NC=NN4C2)C=N1)FFormula  $C_{13}H_8BrF_2N_5$  M.Wt 352.14

Solubility DMSO : 100 mg/mL (283.98 mM; Need ultrasonic) 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.

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

Structure **Background**

RO 4938581 is a potent and selective GABAA  $\alpha 5$  inverse agonist, with a  $K_i$  of 4.6 nM for GABAA  $\alpha 5\beta 3\gamma 2a$ , and shows a lower affinity at  $\alpha 1\beta 3\gamma 2a$ ,  $\alpha 2\beta 3\gamma 2a$ ,  $\alpha 3\beta 3\gamma 2a$  ( $K_i$ , 174, 185, 80 nM, respectively); RO 4938581 is used in the research of cognitive dysfunction.

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RO 4938581 (0.3-1 mg/kg, p.o.) reverses a working memory impairment induced by scopolamine the delayed match to position (DMTP) task and a spatial learning impairment induced by diazepam (RO 4938581; 1-10 mg/kg, po)[1].

[1]. Knust H, et al. The discovery and unique pharmacological profile of RO4938581 and RO4882224 as potent and selective GABAA  $\alpha 5$  inverse agonists for the treatment of cognitive dysfunction. *Bioorg Med Chem Lett.* 2009 Oct 15;19(20):5940-4.

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

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