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## Product Data Sheet

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Product Name: Bay 36-7620

Cat. No.: GC10141

### Chemical Properties

Cas. No. 232605-26-4

Chemical Name (3aS,6aS)-5-methylene-6a-(naphthalen-2-ylmethyl)hexahydro-1H-cyclopenta[c]furan-1-one

SMILES O=C1OC[C@@H](C2)[C@](CC3=CC=C4C(C=CC=C4)=C3)1CC2=C

Formula  $C_{19}H_{18}O_2$  M.Wt 278.35

Solubility <27.84mg/ml in ethanol; <27.84mg/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.

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

Structure

### Background

Metabotropic glutamate (mGlu) receptors are G protein-coupled receptors (GPCRs) that act predominantly as modulators of synaptic transmission. As such, they play a role in many physiological and pathophysiological processes. BAY36-7620 is a potent non-competitive mGlu1 receptor antagonist with.

In vitro: BAY36-7620 is a potent and selective antagonist at mGlu1 receptors and inhibits >60% of mGlu1a receptor constitutive activity ( $IC_{50} = 0.38 \mu M$ ). BAY36-7620 is thus the first described mGlu1 receptor inverse agonist. Moreover, BAY36-7620 did not displace the [3H]quisqualate binding from the Glu-binding pocket, indicating that BAY36-7620 is a noncompetitive mGlu1 antagonist [2].

In vivo: BAY 36-7620 protected against pentylentetrazole-induced convulsions in the mouse. As assessed in rats, BAY 36-7620 was devoid of the typical side effects of the ionotropic glutamate (iGlu) receptor antagonists phencyclidine and MK-801. Therefore, BAY 36-7620 did not disrupt sensorimotor gating, induce phencyclidine-like

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discriminative effects or stereotypical behavior, or facilitate intracranial self-stimulated behavior [3].

Clinical trial: Up to now, BAY 36-7620 is still in the preclinical development stage.

### Reference:

[1] Carroll FY, Stolle A, Beart PM, Voerste A, Brabet I, Mauler F, Joly C, Antonicek H, Bockaert J, Müller T, Pin JP, Prézeau L. BAY36-7620: a potent non-competitive mGlu1 receptor antagonist with inverse agonist activity. *Mol Pharmacol.* 2001 May;59(5):965-73.

[2] De Vry J, Horváth E, Schreiber R. Neuroprotective and behavioral effects of the selective metabotropic glutamate mGlu(1) receptor antagonist BAY 36-7620. *Eur J Pharmacol.* 2001 Oct 5;428(2):203-14.

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