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## Product Data Sheet

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Product Name: Terbogrel (BIBV 308SE)

Cat. No.: GC32550

### Chemical Properties

Cas. No. 149979-74-8

SMILES O=C(O)CCC/C=C(C1=CC=CC(/N=C(NC#N)/NC(C)(C)C)=C1)/C2=CC=CN=C2

Formula  $C_{23}H_{27}N_5O_2$  M.Wt 405.49

Solubility Soluble 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

Terbogrel is an orally available thromboxane A<sub>2</sub> receptor antagonist and a thromboxane A<sub>2</sub> synthase inhibitor, with both IC<sub>50</sub>s of about 10 nM.

Pretreatment of platelets with terbogrel 1 μM completely inhibits thrombin-induced thromboxane A<sub>2</sub> formation (2±1 ng/mL) but does not result in any inhibition of platelet aggregation. Terbogrel (1 μM) completely inhibits U46619-induced platelet aggregation, and the IC<sub>50</sub> value is 10 nM. Terbogrel inhibits both platelet aggregation and thromboxane A<sub>2</sub> formation with an IC<sub>50</sub> of about 10 nM[1]. Terbogrel inhibits the thromboxane A<sub>2</sub> synthase in human gel-filtered platelets with an IC<sub>50</sub> value of 4.0 ± 0.5 nM. Terbogrel blocks the thromboxane A<sub>2</sub>/endoperoxide receptor on washed human platelets with an IC<sub>50</sub> of 11 ± 6 nM (n = 2) and with an IC<sub>50</sub> of 38 ± 1 nM (n = 15) in platelet-rich plasma. Terbogrel inhibits the collagen-induced platelet aggregation in human platelet-rich plasma and whole blood with an IC<sub>50</sub> of 310 ± 18 nM (n = 8) and 52 ± 20 nM (n = 6), respectively[2].

Terbogrel (0.1-3.0 mg/kg) demonstrates an impressive antithrombotic efficacy in rabbits. Terbogrel (10 mg/kg, po) is rapidly and well (90%) absorbed with a systemic availability

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

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of about 30% in rats[2].

[1]. Muck S, et al. Effects of terbogrel on platelet function and prostaglandin endoperoxide transfer. Eur J Pharmacol. 1998 Feb 26;344(1):45-8. [2]. Soyka R, et al. Guanidine derivatives as combined thromboxane A2 receptor antagonists and synthase inhibitors. J Med Chem. 1999 Apr 8;42(7):1235-49.

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