

## Product Data Sheet

Product Name: c-Kit-IN-3 D-tartrate

Cat. No.: GC38756

### Chemical Properties

Cas. No.

SMILES O=C(NC1=CC=C(OC2=CC=NC3=CC(OC)=C(OC)C=C23)C=C1)CC4=CC=C(Cl)C(C(F)(F)F)=C4.O[C@@H]([C@H](O)C(O)=O)C(O)=O

Formula  $C_{30}H_{26}ClF_3N_2O_{10}$  M.Wt 666.98

Solubility Soluble in DMSO Storage Store at  $-20^{\circ}C$

General tips For obtaining a higher solubility, please warm the tube at  $37^{\circ}C$  and shake it in the ultrasonic bath for a while. Stock solution can be stored below  $-20^{\circ}C$  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

c-Kit-IN-3 (D-tartrate) (Compound 18) is a potent c-KIT kinase inhibitor, which is potent and selective against BaF3-tel-c-KIT (IC<sub>50</sub> of 4 nM) and a broad spectrum of drug-resistant mutants (IC<sub>50</sub> of 8 nM for BaF3-tel-c-KIT-T670I) with improved bioavailability[1].

c-Kit-IN-3 (D-tartrate) (Compound 18; 0.006  $\mu$ M-1.37  $\mu$ M) potently inhibits the growth of c-KIT-dependent GIST cancer cells, such as GIST-T1 (GI<sub>50</sub>: 0.006  $\mu$ M); GIST-882 (GI<sub>50</sub>: 0.013  $\mu$ M); GIST-T1-T670I (GI<sub>50</sub>: 0.011  $\mu$ M); GIST-5R (GI<sub>50</sub>: 0.073  $\mu$ M); GIST-48B (GI<sub>50</sub>: 1.37  $\mu$ M), respectively[1]. c-Kit-IN-3 (D-tartrate) (Compound 18; 0.01-1  $\mu$ M; 24 hours; GIST-T1, GIST-T1-T670I, and GIST-5R cells) treatment induces dose-dependent cell apoptotic death (by examining the cleaved PARP and cleaved caspase 3)[1]. c-Kit-IN-3 (D-tartrate) (Compound 18; 0.01-1  $\mu$ M; 24 hours; GIST-T1, GIST-T1-T670I, and GIST-5R cells) treatment arrests the cell cycle into the G<sub>0</sub>/G<sub>1</sub> phase in all of these three cell lines[1]. c-Kit-IN-3 (D-tartrate) (Compound 18; 0.1-10  $\mu$ M; 6 days; primary GIST patient cells) exhibits dose-dependent antiproliferative effects[1]. c-Kit-IN-3 (D-tartrate) (Compound 18; 0-1  $\mu$ M; 24 hours) blocks the autophosphorylation of c-KIT pY703, pY719, and pY823 in GIST-T1, GIST-T1-T670I, and GIST-5R, respectively, cells at a concentration of 30 nM and inhibits the downstream signaling mediators pAKT (T308/S473), pS6 (S235/236), and pERK (T202/204)[1]. c-Kit-IN-3 (D-tartrate) (Compound 18; 0-1  $\mu$ M; 2 hours) induces dose-dependent cell apoptotic death (by examining the cleaved

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PARP and cleaved caspase 3) and arrest the cell cycle into the G0/G1 phase in all of these three cell lines[1].

c-Kit-IN-3 (D-tartrate) (Compound 18; 40-100 mg/kg; oral gavage; daily; for 11 days; for 4 weeks; female BALB/C-nu mice) treatment dose dependently inhibits the BaF3-tel-c-KIT-T670I tumor progression and exhibited almost 100% TGI (tumor growth inhibition) at a dosage of 100 mg/kg/day. And do not affect the animal weights[1]. Animal Model: Female BALB/C-nu mice bearing established BaF3-tel-c-KIT-T670I tumor xenograft[1]

[1]. Wu Y, et al. Discovery of 2-(4-Chloro-3-(trifluoromethyl)phenyl)-N-(4-((6,7-dimethoxyquinolin-4-yl)oxy)phenyl)acetamide (CHMFL-KIT-64) as a Novel Orally Available Potent Inhibitor against Broad-Spectrum Mutants of c-KIT Kinase for Gastrointestinal Stromal Tumors. *J Med Chem.* 2019 Jul 11;62(13):6083-6101.

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