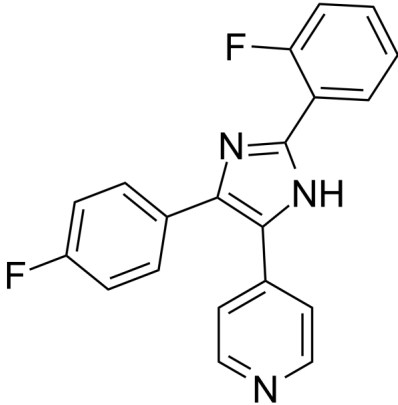


Data Sheet

Product Information

Catalog Number	BP12518
Product Name	TA-02
Description	TA-02, an analog of SB 203580 (HY-10256), is a p38 MAPK inhibitor with an IC ₅₀ of 20 nM. TA-02 especially inhibits TGFBR-2. TA-02 exhibits similar cardiogenic properties as SB 203580 and SB 202190 (HY-10295).
Targets&IC ₅₀	p38 MAPK:20 nM
In vitro	TA-02 (5 μM) inhibits the phosphorylation of proteins downstream of p38α MAPK such as MAPKAPK2 and HSP27 during cardiogenesis. TA-02 at 5 μM concentration induces cardiogenesis, but also increases ATF-2 phosphorylation and MEF2C expression in contrast to what would be expected with a mechanism dependent on p38α MAPK inhibition. TA-02 induces T/Brachyury whereas SB203580 addition increased MESP1 and T/Brachyury transcripts. TA-02 significantly induces high NKX2-5 expression when applied between days 0-8. TA-02 is found to inhibit multiple targets with similar potency to p38α MAPK, such as p38α, p38β, JNK3, JNK2, CIT, CK1ε, DMPK2, JNK1, DDR1 CK1δ, MEK5, and ERBB2. TA-02 and SB203580 reduce the nuclear TCF/LEF-1 driven transcription of luciferase similar to DKK-1. TA-02 (5 nM-5 μM) inhibits p38 and increases the anti-inflammation effects of BDNF on inflammation in vitro.
Synonyms	TA 02, TA02
CAS No.	1784751-19-4
Chemical Formula	C ₂₀ H ₁₃ F ₂ N ₃
Molecular Weight	333.342

Solubility	DMSO: ≥ 34 mg/mL (83.67 mM)
Storage	Powder: -20°C for 2 years In solvent: -80°C for 1 year
Chemical Structure OR Tested Image	 <p>The chemical structure shows a central 5H-pyridine ring. At the 2-position, there is a 4-fluorophenyl group (a benzene ring with a fluorine atom at the para position). At the 4-position, there is a 3-fluorophenyl group (a benzene ring with a fluorine atom at the meta position). The pyridine ring has a nitrogen atom at the bottom position (position 1).</p>

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