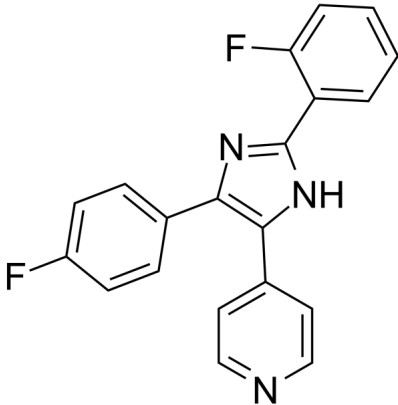


Certificate of Analysis

Catalog Number	BP12518
Product Name	TA-02

Physical and Chemical Properties

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	

Product Information

Description	TA-02, an analog of SB 203580 (HY-10256), is a p38 MAPK inhibitor with an IC50 of 20 nM. TA-02 especially inhibits TGFBR-2. TA-02 exhibits similar cardiogenic properties as SB 203580 and SB 202190 (HY-10295).
Targets&IC50	p38 MAPK:20 nM
In vitro	TA-02 (5 μ M) inhibits the phosphorylation of proteins downstream of p38 α MAPK such as MAPKAPK2 and HSP27 during cardiogenesis. TA-02 at 5 μ M concentration induces cardiogenesis, but also increases ATF-2 phosphorylation and MEF2C expression in contrast to what would be expected with a mechanism dependent on p38 α 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 p38 α MAPK, such as p38 α , p38 β , JNK3, JNK2, CIT, CK1 ϵ , DMPK2, JNK1, DDR1 CK1 δ , 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 μ M) inhibits p38 and increases the anti-inflammation effects of BDNF on inflammation in vitro.

Analytical Data

HPLC	Shows Min >99% purity
H-NMR	Consistent with structure
Stability and Solubility Advice	Information on product stability, especially in solution, has rarely been reported and in most cases we can only provide a general guideline. We recommend that once the stock solution has been prepared, it be stored in equal quantities in sealed vials and used within 1 month. Avoid repeated freezing and thawing cycles. Storage conditions for some special products should be referred to their storage details.

Purdue Bioscience Inc.

750 50th St, Brooklyn, NY 11220, USA

<https://www.purduebio.com>

1-877.618.7311

info@purduebio.com

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