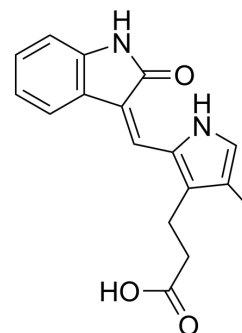


SU 5402 (GMP)

Cat. No.:	HY-10407G
CAS No.:	215543-92-3
Molecular Formula:	C ₁₇ H ₁₆ N ₂ O ₃
Molecular Weight:	296.32
Target:	VEGFR; EGFR; PDGFR
Pathway:	Protein Tyrosine Kinase/RTK; JAK/STAT Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	SU 5402 (GMP) is SU 5402 (HY-10407) produced by using GMP guidelines. GMP small molecules work appropriately as an auxiliary reagent for cell therapy manufacture. SU 5402 is a potent multi-targeted receptor tyrosine kinase inhibitor with IC ₅₀ of 20 nM, 30 nM, and 510 nM for VEGFR2, FGFR1, and PDGFRβ, respectively ^[1] .		
IC₅₀ & Target	VEGFR2 20 nM (IC ₅₀)	PDGFRβ 510 nM (IC ₅₀)	EGFR 30 nM (IC ₅₀)
In Vitro	<p>SU 5402 (GMP) (5 μM, added at days 4, 6 and 8 of differentiation) inhibits neural induction from hiPSC as well as hESC (TZ1 hiPSC or H9 hESC), indicating that FGF signaling is required for neural induction^[1].</p> <p>SU 5402 (GMP) (0.8 μM, from day 2 to day 12), together with PD184352 and CHIR99021, enhances the reprogramming efficiency and increases the number of colonies (reprogram MEFs to iPSCs)^[2].</p> <p>SU 5402 (GMP) together with PD184352 and CHIR99021 accelerate differentiation of iPSCs^[2].</p> <p>SU 5402 (GMP) (10 μM, from day 5 to day 17) efficiently differentiates IWR-1 (HY-12238)-treated hiPSCs into retinal pigment epithelium (RPE) progenitors^[3].</p> <p>SU 5402 (GMP) enhances neuronal differentiation efficiency^[4].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>		

CUSTOMER VALIDATION

- J Hazard Mater. 2020 Jul 5;393:122440.
- J Genet Genomics. 2022 Nov 29;S1673-8527(22)00250-8.
- iScience. 2019 Sep 27;19:1248-1259.
- Theriogenology. 2019 Nov;139:90-97.
- Theriogenology. 2019 Jul 1;132:27-35.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Zeng H, et al. Specification of region-specific neurons including forebrain glutamatergic neurons from human induced pluripotent stem cells. PLoS One. 2010 Jul 29;5(7):e11853.

[2]. Nishihara K, et al. Induced Pluripotent Stem Cells Reprogrammed with Three Inhibitors Show Accelerated Differentiation Potentials with High Levels of 2-Cell Stage Marker Expression. Stem Cell Reports. 2019 Feb 12;12(2):305-318.

[3]. Ito A, et al. Efficient and robust induction of retinal pigment epithelium cells by tankyrase inhibition regardless of the differentiation propensity of human induced pluripotent stem cells. Biochem Biophys Res Commun. 2021 May 7;552:66-72.

[4]. Chambers SM, et al. Combined small-molecule inhibition accelerates developmental timing and converts human pluripotent stem cells into nociceptors. Nat Biotechnol. 2012 Jul 1;30(7):715-20.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA