PRODUCT INFORMATION



SU 1498

Item No. 16354

CAS Registry No.:	168835-82-3	
Formal Name:	(2E)-2-cyano-3-[4-hydroxy-3,5-	
	<i>bis</i> (1-methylethyl)phenyl]-N-(3- phenylpropyl)-2-propenamide	
Synonyms:	AG-1498, Tyrphostin SU 1498	ОН
MF:	$C_{25}H_{30}N_2O_2$	
FW:	390.5	
Purity:	≥98%	$\sim \sim \sim ~ \downarrow ~ \sim ~ \downarrow$
UV/Vis.:	λ _{max} : 249, 348, 356 nm	0
Supplied as:	A crystalline solid	
Storage:	-20°C	
Stability:	≥4 years	

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

SU 1498 is supplied as a crystalline solid. A stock solution may be made by dissolving the SU 1498 in the solvent of choice, which should be purged with an inert gas. SU 1498 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of SU 1498 in these solvents is approximately 10, 20, and 50 mg/ml, respectively.

SU 1498 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, SU 1498 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. SU 1498 has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

SU 1498 is a selective inhibitor of the receptor tyrosine kinase VEGF receptor 2 (VEGFR2, aka FLK1; IC₅₀ = 700 nM), having negligible activity at several other serine/threonine and tyrosine kinases.^{1,2} It effectively blocks signaling through VEGFR2 both in vitro and in vivo.^{1,3} SU 1498 is used to study the role of VEGFR2 signaling in diverse processes, including angiogenesis, tumor growth, neural progenitor cell survival, and neuroregeneration.³⁻⁶

References

- 1. Strawn, L.M., McMahon, G., App, H., et al. Flk-1 as a target for tumor growth inhibition. Cancer Res. 56(15), 3540-3545 (1996).
- 2. Fedorov, O., Marsden, B., Pogacic, V., et al. A systematic interaction map of validated kinase inhibitors with Ser/Thr kinases. Proc. Natl. Acad. Sci. USA 104(51), 20523-20528 (2007).
- 3. Arbiser, J.L., Larsson, H., Claesson-Welsh, L., et al. Overexpression of VEGF 121 in immortalized endothelial cells causes conversion to slowly growing angiosarcoma and high level expression of the VEGF receptors VEGFR-1 and VEGFR-2 in vivo. Am. J. Pathol. 156(4), 1469-1476 (2000).
- 4. Francescone, R., Scully, S., Bentley, B., et al. Glioblastoma-derived tumor cells induce vasculogenic mimicry through Flk-1 protein activation. J. Biol. Chem. 287(29), 24821-24831 (2012).
- 5. Harms, K.M., Li, L., and Cunningam, L.A. Murine neural stem/progenitor cells protect neurons against ischemia by HIF-1α-regulated VEGF signaling. PLoS One 5(3), 1-12 (2010).
- 6. Pan, Z., Fukuoka, S., Karagianni, N., et al. Vascular endothelial growth factor promotes anatomical and functional recovery of injured peripheral nerves in the avascular cornea. FEBS J. 27(7), 2756-2767 (2013).

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFFTY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

uyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/09/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD ANN ARBOR, MI 48108 · USA PHONE: [800] 364-9897 [734] 971-3335 FAX: [734] 971-3640 CUSTSERV@CAYMANCHEM.COM WWW.CAYMANCHEM.COM