

## **SU1498**

(E)-3-(3,5-Diisopropyl-4-hydroxyphenyl)-2-[(3-phenyl-n-propyl)amino-carbonyl]acrylonitrile

## PRODUCT ANALYSIS SHEET

Catalog Number: PHZ1224

**Lot Number:** See product label

**Quantity:** 5 mg

**Appearance:** Pale yellow solid. Packaged under inert gas.

**Molecular Formula:**  $C_{25}H_{30}N_2O_2$ 

**Molecular Weight:** 390.5

**Purity:** ≥95%, as determined by HPLC

Summary: SU1498 is a potent, selective inhibitor of vascular endothelial growth factor receptor 2

(VEGFR2, also known as Flk-1 and KDR) kinase activity. SU1498 inhibits signaling arising from VEGFR2 stimulation, including activation of ERK1&2. In whole tissue studies, SU1498 inhibits angiogenesis, as assessed by the chorioallantoic membrane (CAM) assay and capillary tube formation, and inhibits VEGF-induced vascular permeability. Weak inhibition of PDGF receptor, EGF receptor, and ErbB-2 (HER2) is observed with higher SU1498 concentrations.

**Biological Activity:** Flk-1 kinase:  $IC_{50} = 700 \text{ nM}$  EGF receptor:  $IC_{50} > 100 \mu\text{M}$ 

PDGF receptor:  $IC_{50}>50 \mu M$  HER-2:  $IC_{50}>100 \mu M$ 

**Soluble** in DMSO.

**Sterility:** This product is not sterile.

**Storage:** Store, as supplied, at  $-20^{\circ}$ C, protected from light. Upon solubilization, apportion into working

aliquots and store at -20°C. Avoid repeated freeze/thaw cycles. Solutions are stable at -20°C for

up to one month.

**Expiration Date:** Expires one year from date of receipt when stored as instructed.

**Related Products:** VEGFR [pY951] antibody, Cat. # 44-1040

VEGFR2 [pY1054] antibody, Cat. # 44-1046

VEGFR2 [pYpY1054/1059] antibody, Cat. # 44-1047G

VEGFR2 [pY1214] antibody, Cat. # 44-1052 VEGFR2 pan antibody, Cat. # 44-1053G

**Caution:** Avoid contact with eyes, skin, and mucous membranes. Wear protective clothing when handling

this product. Not for human use.

This product is for research use only. Not for use in diagnostic procedures.

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Manufactured under ISO 13485 Quality Standard

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PI PHZ1224

(Rev 1.1 ) (DCC-08-1232)

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## **References:**

Strawn, L.M., et al. (1996) Flk-1 as a target for tumor growth inhibition. Cancer Res. 56(15):3540-3545.

Jin, K., et al. (2002) Vascular endothelial growth factor (VEGF) stimulates neurogenesis in vitro and in vivo. Proc. Nat'l. Acad. Sci. USA 99(18):11946-11950.

Boguslawski, G., et al. (2004) SU1498, an inhibitor of vascular endothelial growth factor receptor 2, causes accumulation of phosphorylated ERK kinases and inhibits their activity in vivo and in vitro. J. Biol. Chem. 279(7):5716-5724.

Wang, L., et al. (2004) Treatment of stroke with erythropoietin enhances neurogenesis and angiogenesis and improves neurological function in rats. Stroke 35(7):1732-1737.

Yamamoto, K., et al. (2005) Fluid shear stress induces differentiation of Flk-1-positive embryonic stem cells into vascular endothelial cells in vitro. Am. J. Physiol. Heart Circ. Physiol. 288(4):H1915-H1924.

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