

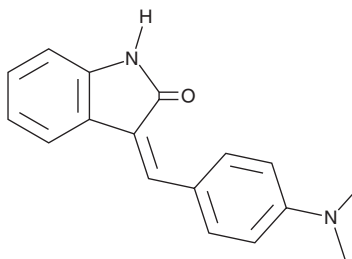
# PRODUCT INFORMATION



## SU 4312

Item No. 20213

**CAS Registry No.:** 5812-07-7  
**Formal Name:** 3-[[4-(dimethylamino)phenyl]methylene]-1,3-dihydro-2H-indol-2-one  
**Synonym:** NSC 86429  
**MF:** C<sub>17</sub>H<sub>16</sub>N<sub>2</sub>O  
**FW:** 264.3  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 267, 436 nm  
**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 4312 is supplied as a crystalline solid. A stock solution may be made by dissolving the SU 4312 in the solvent of choice, which should be purged with an inert gas. SU 4312 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of SU 4312 in these solvents is approximately 0.25, 10, and 30 mg/ml, respectively.

SU 4312 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, SU 4312 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. SU 4312 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 4312 is a selective, cell-permeable inhibitor of VEGFR2 and PDGFR tyrosine kinases (IC<sub>50</sub>s = 0.8 and 19.4 μM, respectively).<sup>1</sup> It demonstrates IC<sub>50</sub> values >100 μM at EGFR, HER2, and IGF-1R.<sup>1</sup> SU 4312 has been shown to inhibit VEGF-dependent angiogenesis in a zebrafish assay (IC<sub>50</sub> = 1.8 μM) without affecting normal cells.<sup>2</sup> SU 4312 has also been shown to prevent MPP<sup>+</sup>-induced neuronal apoptosis *in vitro*, as well as to decrease MPTP-induced loss of dopaminergic neurons, reduce expression of mRNA for tyrosine hydroxylase, and impair swimming behavior in zebrafish.<sup>3</sup>

### References

1. Sun, L., Tran, N., Tang, F., *et al.* Synthesis and biological evaluations of 3-substituted indolin-2-ones: A novel class of tyrosine kinase inhibitors that exhibit selectivity toward particular receptor tyrosine kinases. *J. Med. Chem.* **41**(14), 2588-2603 (1998).
2. Tran, T. C., Sneed, B., Haider, J., *et al.* Automated, quantitative screening assay for antiangiogenic compounds using transgenic zebrafish. *Cancer Res.* **67**(23), 11386-11392 (2007).
3. Cui, W., Zhang, Z., Li, W., *et al.* The anti-cancer agent SU4312 unexpectedly protects against MPP<sup>+</sup>-induced neurotoxicity *via* selective and direct inhibition of neuronal NOS. *Br. J. Pharmacol.* **168**(5), 1201-1214 (2013).

#### WARNING

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

#### SAFETY 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

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