

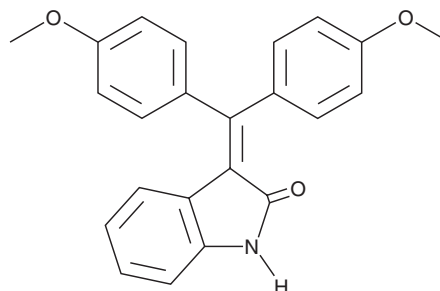
PRODUCT INFORMATION



TAS 301

Item No. 14976

CAS Registry No.: 193620-69-8
Formal Name: 3-[bis(4-methoxyphenyl)methylene]-1,3-dihydro-2H-indol-2-one
MF: C₂₃H₁₉NO₃
FW: 357.4
Purity: ≥98%
UV/Vis.: λ_{max}: 253, 358 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

TAS 301 is supplied as a crystalline solid. A stock solution may be made by dissolving the TAS 301 in the solvent of choice, which should be purged with an inert gas. TAS 301 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of TAS 301 in ethanol is approximately 0.33 mg/ml and approximately 20 mg/ml in DMSO and DMF.

TAS 301 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, TAS 301 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. TAS 301 has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

TAS 301 (10 μM) impedes Ca²⁺ mobilization and Ca²⁺/calmodulin-dependent protein kinase II (CaM kinase II) activation that inhibits vascular smooth muscle cell (VSMC) proliferation *in vitro*.^{1,2} At a concentration of 10 μM, TAS 301 also inhibits platelet-derived growth factor (PDGF)-induced tyrosine phosphorylation of focal adhesion kinase and paxillin and promotes cytoskeletal rearrangement.¹ TAS 301 (3-100 mg/kg) inhibits migration and proliferation of VSMCs and prevents arterial intimal thickening *in vivo* in a model of balloon-injured arteries in rats.³ In a micro pig model, TAS 301 administration (30-100 mg/kg) prevents coronary artery stenosis after balloon overstretch injury.⁴

References

1. Sasaki, E., Miyoshi, K., Nozawa, Y., *et al.* Tas-301, a new synthetic inhibitor of neointimal thickening after balloon injury, inhibits calcium-dependent signal transduction and cytoskeletal reorganization. *Pharmacology* **63**(1), 17-27 (2001).
2. Sasaki, E., Nozawa, Y., Miyoshi, K., *et al.* TAS-301 blocks receptor-operated calcium influx and inhibits rat vascular smooth muscle cell proliferation induced by basic fibroblast growth factor and platelet-derived growth factor. *Jpn. J. Pharmacol.* **84**(3), 252-258 (2000).
3. Muranaka, Y., Yamasaki, Y., Nozawa, Y., *et al.* TAS-301, an inhibitor of smooth muscle cell migration and proliferation, inhibits intimal thickening after balloon injury to rat carotid arteries. *J. Pharmacol. Exp. Ther.* **285**(3), 1280-1286 (1998).
4. Sasaki, E., Tanahashi, Y., Yamasaki, Y., *et al.* Inhibitory effect of TAS-301, a new synthesized constrictive remodeling regulator, on renarrowing after balloon overstretch injury of porcine coronary artery. *J. Pharmacol. Exp. Ther.* **295**(3), 1043-1050 (2000).

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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