

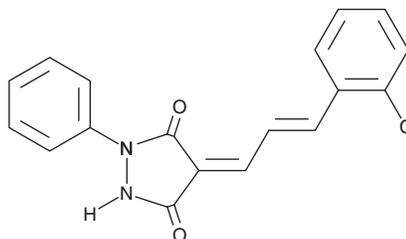
PRODUCT INFORMATION



CPYPP

Item No. 17386

CAS Registry No.: 310460-39-0
Formal Name: 4-[3-(2-chlorophenyl)-2-propen-1-ylidene]-1-phenyl-3,5-pyrazolidinedione
MF: C₁₈H₁₃ClN₂O₂
FW: 324.8
Purity: ≥98% (mixture of isomers)
UV/Vis.: λ_{max}: 247, 362 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

CPYPP is supplied as a crystalline solid. A stock solution may be made by dissolving the CPYPP in the solvent of choice, which should be purged with an inert gas. CPYPP is soluble in the organic solvent DMSO at a concentration of approximately 50 mM.

Description

CPYPP is an inhibitor of the Rac activators dedicator of cytokinesis 2 (DOCK2; IC₅₀ = 22.8 μM for DOCK2 guanine nucleotide exchange factor (GEF) activity), DOCK5, and DOCK180.^{1,2} It is selective for these DOCK-A subfamily proteins over the DOCK-D subfamily member DOCK9.¹ CPYPP (100 μM) prevents chemokine-induced Rac activation in T and B cells. It also inhibits chemokine-induced migration of T and B cells. CPYPP (5 mg/animal, i.p.) reduces migration of T cells to peripheral lymph nodes in mice following adoptive transfer of spleen cells from knock-in mice expressing GFP-tagged DOCK2. It also reduces myeloperoxidase (MPO) activity in lung tissue, LPS-induced cytokine release in serum, and the severity of lung injury in a mouse model of endotoxemia-induced acute lung injury when administered at a dose of 250 mg/kg.³

References

1. Nishikimi, A., Uruno, T., Duan, X., *et al.* Blockade of inflammatory responses by a small-molecule inhibitor of the Rac activator DOCK2. *Chem. Biol.* **19**(4), 488-497 (2012).
2. Ferrandez, Y., Zhang, W., Peurois, F., *et al.* Allosteric inhibition of the guanine nucleotide exchange factor DOCK5 by a small molecule. *Sci. Rep.* **7**(1), 14409 (2017).
3. Xu, X., Su, Y., Wu, K., *et al.* DOCK2 contributes to endotoxemia-induced acute lung injury in mice by activating proinflammatory macrophages. *Biochem. Pharmacol.* **184**, 114399 (2021).

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.

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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