

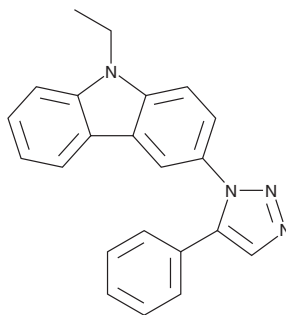
PRODUCT INFORMATION



MBQ-167

Item No. 35437

CAS Registry No.: 2097938-73-1
Formal Name: 9-ethyl-3-(5-phenyl-1H-1,2,3-triazol-1-yl)-9H-carbazole
MF: C₂₂H₁₈N₄
FW: 338.4
Purity: ≥98%
Supplied as: A 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

MBQ-167 is supplied as a solid. A stock solution may be made by dissolving the MBQ-167 in the solvent of choice, which should be purged with an inert gas. MBQ-167 is soluble in DMSO.

Description

MBQ-167 is a dual inhibitor of Rac and cell division cycle 42 (Cdc42; IC₅₀s = 103 and 78 nM, respectively).¹ It reduces Rac and Cdc42 GTP binding and GTPase activity and limits migration and mammosphere formation in MDA-MB-231 breast cancer cells when used at a concentration of 250 nM. MBQ-167 (250 nM), alone and in combination with the kinase inhibitor lapatinib (Item No. 11493), reduces cell viability and induces apoptosis in lapatinib-resistant SK-BR-3 and MDA-MB-435 breast cancer cells.² It also reduces growth rates, axial budding, and Cdc42 activity in *S. cerevisiae* when used at a concentration of 200 μM.³ Intraperitoneal administration of MBQ-167 (1 or 10 mg/kg three times per week) reduces tumor growth in an MDA-MB-435 mouse xenograft model.¹

References

1. Humphries-Bickley, T., Catstillo-Pichardo, L., Hernandez-O'Farrill, E., *et al.* Characterization of a dual Rac/ CDC42 inhibitor MBQ-167 in metastatic cancer. *Mol. Cancer Ther.* **16**(5), 805-818 (2017).
2. Borrero-Garcia, L.D., Maldonado, M.D.M., Medina-Velazquez, J., *et al.* Rac inhibition as a novel therapeutic strategy for EGFR/HER2 targeted therapy resistant breast cancer. *BMC Cancer* **21**(1), 652 (2021).
3. Rivera-Robles, M.J., Medina-Valazquez, J., Asencio-Torres, G.M., *et al.* Targeting Cdc42 with the anticancer compound MBQ-167 inhibits cell polarity and growth in the budding yeast *S. cerevisiae*. *Small GTPases* **11**(6), 430-440 (2020).

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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