

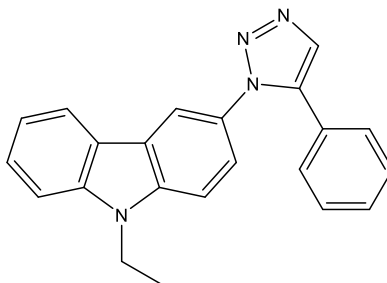
Catalog # 10-4434

MBQ-167

CAS# 2097938-73-1

1-(9-Ethyl-9H-carbazol-3-yl)-5-phenyl-1H-1,2,3-triazole; 9-Ethyl-3-(5-phenylcarbazol-1-yl)carbazole

Lot # FBA8084



MBQ-167 is a dual inhibitor of the Rho GTPases Rac ($IC_{50} = 103$ nM) and Cdc42 ($IC_{50} = 78$ nM).¹ It inhibits breast cancer cell migration, viability, and mammosphere formation. MBQ-167 induced polarity loss resulting in 95% cell rounding and detachment from the substratum in metastatic MDA-MB-231 cells and was active in GFP-HER2-BM, MDA-MB-468, and Hs578t breast cancer cells as well as Mia-PaCa-2 pancreatic cancer cells, SKOV3 ovarian cancer cells, AGS and NCI-N87 gastric cancer cells, and SH-SY5Y neuroblastoma cells. Non-cancerous mammary epithelial MCF10A and epithelial breast cancer MCF-7 cells were resistant to MBQ-167. MBQ-167 inhibited viability and induced apoptosis in gefitinib and lapatinib resistant SKBR3 breast cancer cells.² MBQ-167 inhibited triple negative breast cancer tumor growth and lung metastasis in a mouse model.³ Active *in vivo*.

- 1) Humphries-Bickley *et al.* (2017) *Characterization of a Dual Rac/Cdc42 Inhibitor MBQ-167 in Metastatic Cancer*; Mol.Cancer Ther. **16** 805
- 2) Borrero-Garcia *et al.* (2021) *Rac inhibition as a novel therapeutic strategy for EGFR/HER2 targeted therapy resistant breast cancer*; BMC Cancer **21** 652
- 3) Cruz-Collazo *et al.* (2021) *Efficacy of Rac and Cdc42 inhibitor MBQ-167 in triple negative breast cancer*; Mol. Cancer Ther. **20** 2420

PHYSICAL DATA

Molecular Weight:	338.41
Molecular Formula:	C ₂₂ H ₁₈ N ₄
Purity:	>98% (HPLC)
Solubility:	DMSO (>25 mg/ml)
Physical Description:	Off-white solid
Storage and Stability:	Store as supplied at -20° for up to one year from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 2 months

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.