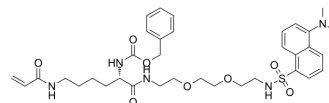


NC9

Cat. No.:	HY-129126
CAS No.:	1352090-52-8
Molecular Formula:	C ₃₅ H ₄₇ N ₅ O ₈ S
Molecular Weight:	697.84
Target:	Glutaminase; Microtubule/Tubulin
Pathway:	Metabolic Enzyme/Protease; Cell Cycle/DNA Damage; Cytoskeleton
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	NC9 (Cbz-Lys(Acr)-PEG2-dansyl) is an irreversible transglutaminase (TG) inhibitor. NC9 inhibits osteoblast differentiation and mineralization. NC9 destabilizes microtubules. NC9 can be used for the research of osteoblast differentiation ^[1] .
In Vitro	<p>NC9 (50 μM; 12 days) reduces TG-activity down to 51% and decreases TG-mediated labeling of the cell layers^[1].</p> <p>NC9 (50 μM; 12 days) inhibits mineral depositions in osteoblast cultures and reduces Ca₂₊ accumulation in cell-matrix layer^[1].</p> <p>NC9 (50 μM; 12 days) blocks extracellular collagen type I (COL I) secretion and deposition, reduces fibronectin (FN) matrix formation and increases FN levels in the cytoskeleton and matrix fraction^[1].</p> <p>NC9 (50 μM; 12 days) destabilizes microtubules with the decreasing of plasma membrane 150-kDa Glu-tubulin level and increasing of 50-kDa tubulin^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

[1]. Al-Jallad HF, et al. Plasma membrane factor XIIIa transglutaminase activity regulates osteoblast matrix secretion and deposition by affecting microtubule dynamics. PLoS One. 2011 Jan 20;6(1):e15893.

Caution: Product has not been fully validated for medical applications. For research use only.

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