



Catalog Number:	MC11024	Product Type:	Small Molecule
Bio-Activity:	Autophagy inhibitor	CAS #:	307538-42-7
Research Categories:	Neuroscience, stem cells, cell death, vesicles	Chemical Name:	6-Bromo-4-allylaminoquinazoline
Solubility:	Soluble in DMSO (up to 25 mg/ml) or in Ethanol (up to 2 mg/ml).	Molecular Formula:	C ₁₁ H ₁₀ BrN ₃
Purity:	> 98%	Molecular Weight:	264.12
Format:	Powder	Ship Temp:	Ambient
Storage:	Room Temperature		

Application Notes

Description/Data:

Smer-28 leads to autophagy by virtue of the mTOR-independent pathway. It also enhances clearance of β -amyloid protein in cell lines and primary neuronal culture models (1-3). It has been hypothesized as a potential therapeutic for neurodegenerative diseases (4). Smer-28 induces the release of articular cartilage vesicles from healthy articular chondrocytes in a dose- and time-dependent manner (5). It also encourages reprogramming of fibroblasts to neural stem-like cells (6).

References:

- 1) Tian et al. (2011), A small-molecule enhancer of autophagy decreases levels of Abeta and APP-CTF via Atg5-dependent autophagy pathway; *FASEB J.*, 25 1934
- 2) Tian et al. (2014), the convergence of endosomal and autophagosomal pathways; implications for APP-CTF degradation; *Autophagy*, 10 694
- 3) Shen et al. (2011), Novel cell- and tissue-based assays for detecting misfolded and aggregated protein accumulation within aggresomes and inclusion bodies; *Cell Biochem. Biophys.*, 60 173
- 4) Renna et al. (2010), chemical inducers of autophagy that enhance the clearance of mutant proteins in neurodegenerative diseases; *J. Biol. Chem.*, 285 11061

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5) Rosenthal et al. (2015), Autophagy modulates articular cartilage vesicle formation in primary articular chondrocytes; *J. Biol. Chem.*, 290 13028

6) Zhang et al. (2016), Phamracological Reprogramming of Fibroblasts into Neural Stem Cells by Signaling-Directed Transcriptional Activation; *Cell Stem Cell.*, 18 653

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