Induces autophagy via an mTOR-independent pathway. Enhances clearance of β-amyloid protein in cell lines and primary neuronal culture models.1-3 May be a useful lead compound for the development of new therapeutics for neurodegenerative diseases.4 Induces the release of articular cartilage vesicles from healthy articular chondrocytes in a dose- and time-dependent manner.5 Promotes reprogramming of fibroblasts to neural stem-like cells.6 Cell permeable.

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
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), Pharmacological Reprogramming of Fibroblasts into Neural Stem Cells by Signaling-Directed Transcriptional Activation; Cell Stem Cell., 18 653

**PHYSICAL DATA**

Molecular Weight: 264.12
Molecular Formula: C_{11}H_{10}BrN_{3}
Purity: 98% by TLC
NMR: (Conforms)
Solubility: Soluble in DMSO (up to 25 mg/ml) or in Ethanol (up to 2 mg/ml)
Physical Description: Beige solid
Storage and Stability: Store as supplied, desiccated at room temperature for up to 1 year from the date of purchase. Solutions in DMSO or ethanol may be stored at -20°C for up to 3 months.

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