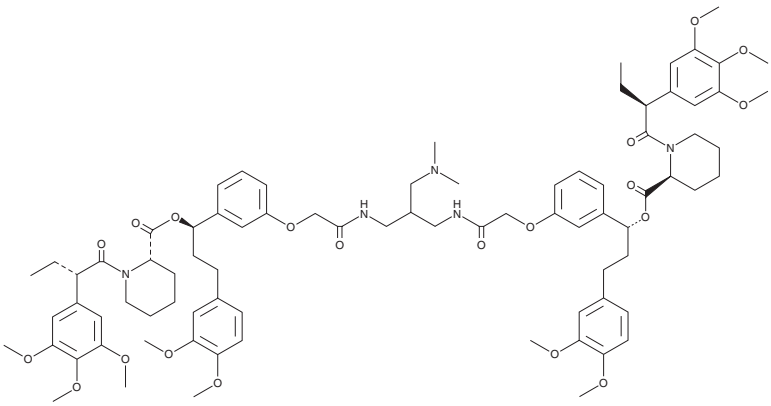
PRODUCT INFORMATION

AP20187

Item No. 36808



CAS Registry No.:	195514-80-8
Formal Name:	2-piperidinecarboxylic acid, (2S,2′S)-1-[(2S)-1-oxo-2-(3,4,5-trimethoxyphenyl) butyl]-2,2′-[[2-[(dimethylamino)methyl]-1,3-propanediyl]*bis*[imino(2-oxo-2,1-ethanediyl)oxy-3,1-phenylene[(1R)-3-(3,4-dimethoxyphenyl)propylidene]]] ester
Synonym:	B/B Homodimerizer
MF:	$C_{82}H_{107}N_5O_{20}$
FW:	1,482.8
Purity:	≥95%
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

AP20187 is supplied as a solid. A stock solution may be made by dissolving the AP20187 in the solvent of choice, which should be purged with an inert gas. AP20187 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of AP20187 in ethanol is approximately 2 mg/ml and approximately 5 mg/ml in DMSO and DMF.

Description

AP20187 is a chemical inducer of dimerization (CID) for FK506 binding protein (FKBP) fusion proteins.[1] It increases expression of the genes encoding DNA damage-inducible transcript 3 (Ddit3) and growth arrest and DNA damage-inducible protein 34 (Gadd34) in primary mouse neonatal glial cells when used at a concentration of 0.1 nM.[2] It increases apoptosis induced by adenoviral vectors expressing conditional caspase-1 (Ad-G/iCasp1) in LNCaP and PC3 human prostate, as well as TRAMP-C2 and TRAMP-C2G murine prostate, cancer cells in a concentration-dependent manner.[1] AP20187 (2 mg/kg), when used in combination with Ad-G/iCasp1, induces apoptosis and reduces tumor volume in a TRAMP-C2 murine prostate cancer model. It induces apoptosis in $p16^{Ink4a}$-positive senescent cells and increases lifespan in ATTAC transgenic mice expressing FKBP-Casp8 and GFP when administered at a dose of 2 µg/g twice per week.[3] AP20187 delays tumorigenesis and reduces glomerulosclerosis and kidney dysfunction in the same mouse model.

References

1. Shariat, S.F., Desai, S., Song, W., *et al.* Adenovirus-mediated transfer of inducible caspases: A novel "death switch" gene therapeutic approach to prostate cancer. *Cancer Res.* **61(6),** 2562-2571 (2001).
2. Lin, W., Lin, Y., Li, J., *et al.* Oligodendrocyte-specific activation of PERK signaling protects mice against experimental autoimmune encephalomyelitis. *J. Neurosci.* **33(14),** 5980-5991 (2013).
3. Baker, D.J., Childs, B.G., Durik, M., *et al.* Naturally occurring $p16^{Ink4a}$-positive cells shorten healthy lifespan. *Nature* **530(7589),** 184-189 (2016).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM