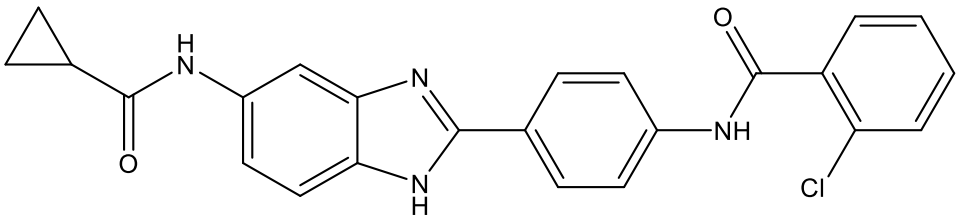
Catalog # 10-4866

NR2E3 agonist 11a

CAS# 911211-69-3

2-Chloro-N-[4-[6-(cyclopropanecarbonylamino)-1H-benzimidazol-2-yl]phenyl]benzamide

Lot # FBA10057



11a is an agonist of the photoreceptor-specific nuclear receptor (NR2E3; PNR; RNR), found in rod photoreceptor cells (EC50 = 141 nM ß-lactamase assay; 35 nM NCOR assay).[1] An interesting tool for targeting age-related macular degeneration. 11a was able to increase p53 activation in uterine cancer tumors suggesting NR2E3 agonism as a new anti-cancer strategy.[2] A previous study found that cytotoxicity of 11a was due to G1/S phase cell cycle arrest rather than NR2E3 agonism.[3]

1) Wolkenberg *et al*. (2006), *Identification of potent agonists of photoreceptor-specific nuclear receptor (NR2E3) and preparation of a radioligand*; Bioorg. Med. Chem. Lett., **16** 5001

2) Wang *et al*. (2025), *Orphan nuclear receptor NR2E3 is a new molecular vulnerability in solid tumors by activating p53*; Cell Death Dis., **16** 15

3) Zhao *et al*. (2013), *Systematic Analyses of the Cytotoxic Effects of Compound 11a, a Putative Synthetic Agonist of Photoreceptor-Specific Nuclear Receptor (PNR), in Cancer Cell Lines*; PLoS One, **8** e75198

PHYSICAL DATA

Molecular Weight:	430.89
Molecular Formula:	$C_{24}H_{19}ClN_4O_2$
Purity:	>98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (30 mg/ml)
Physical Description:	Pale yellow solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

Focus Biomolecules LLC 400 Davis Drive, Suite 600 Plymouth Meeting PA 19462

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