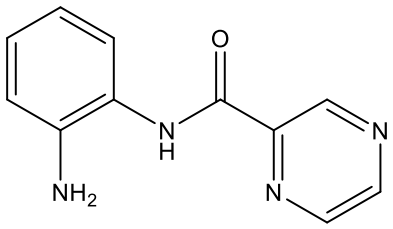
Catalog # 10-5638

BG45

CAS# 926259-99-6

N-(2-Aminophenyl)-2-pyrazinecarboxamide

Lot # X109274



BG45 is a potent and selective HDAC3 inhibitor (IC_{50} = 289 nM), IC_{50}s for HDAC1, 2 and 6 = 2, 2.2 and >20 μM respectively.[1] Inhibits tumor growth in a mouse xenograft model of human multiple myeloma.[1] Downregulates expression of DNA methyltransferase 1.[2] Increases expression of synaptic proteins in exogenous Aβ-treated cells and mice.[3] Rescues synaptic damage and neuron loss in APP-transfected cells (15 μM) and APP/PS1 mice (30 mg/kg).[4]

1) Minami *et al*. (2014), *Histone deacetylase 3 as a novel therapeutic target in multiple myeloma*; Leukemia, **28** 680
2) Harada *et al*. (2017), *HDAC3 regulates DNMT1 expression in multiple myeloma: therapeutic implications*; Leukemia, **31** 2670
3) Han *et al*. (2021), *Class I HDAC Inhibitor Improves Synaptic Proteins and Repairs Cytoskeleton Through Regulating Synapse-Related Genes In vitro and In vivo*; Front. Aging Neurosci., **12** 619866
4) Han *et al*. (2022), *A Class I HDAC Inhibitor Rescues Synaptic Damage and Neuron Loss in APP-Transfected Cells and APP/PS1 Mice through the GRIP1/AMPA Pathway;* Molecules, **27** 4160

PHYSICAL DATA

Molecular Weight:	214.23
Molecular Formula:	$C_{11}H_{10}N_4O$
Purity:	>98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (45 mg/ml)
Physical Description:	Beige 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 2 months.

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