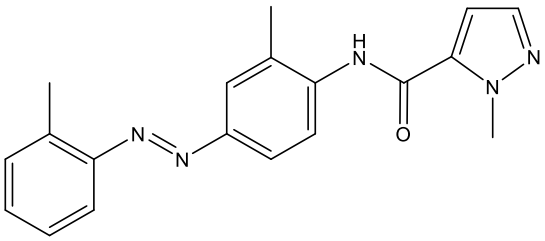
Catalog # 10-3089

CH-223191

CAS# 301326-22-7

1-methyl-N-[2-methyl-4-[2-(2-methylphenyl)diazenyl]phenyl]-1H-pyrazole-5-carboxamide

Lot # S106080



CH-223191 is an arylhydrocarbon (AhR) receptor antagonist, IC_{50}=30 nM.[1] Blocks endogenous AhR agonist-induced differentiation of Th17 cells.[2] Promotes expansion of human hematopoietic stem cells.[3] Mitigates cytokine-mediated inflammatory signaling in human fibroblast-like synoviocytes.[4] An important tool for probing the involvement of AhR in the toxicity of various environmental toxins such as TCDD and other dioxins.[5]

1) Kim *et al*. (2006), *Novel compound 2-methyl-2H-pyrazole-3-carboxylic acid (2-methyl-4-o-tolylazo-phenyl)amide (CH-223191) prevents 2,3,7,8-TCDD-induced toxicity by antagonizing the aryl hydrocarbon receptor*; Mol. Pharmacol., **69** 1871
2) Veldhoen *et al.* (2009), *Natural agonists for aryl hydrocarbon receptor in culture medium are essential for optimal differentiation of Th17 T cells*; J. Exp. Med., **206** 43
3) Carlin *et al.* (2013), *T-cell potential of human adult and cord blood hemopoietic stem cells expanded with the use of aryl hydrocarbon receptor antagonists*; Cytotherapy, **15** 224
4) Lahoti *et al.* (2013), *Aryl hydrocarbon receptor antagonism mitigates cytokine-mediated inflammatory signaling in primary human fibroblast-like synoviocytes*; Ann. Rheum. Dis, **72** 1708
5) Petroff *et al.* (2011), *The aryl hydrocarbon receptor agonist 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) alters early embryonic development in a rat IVF exposure model*; Reprod. Toxicol., **32** 286

PHYSICAL DATA

Molecular Weight:	333.40
Molecular Formula:	$C_{19}H_{19}N_5O$
Purity:	>98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (25 mg/ml); ethanol (10 mg/ml with warming)
Physical Description:	Orange solid
Storage and Stability:	Store as supplied at -20°C for up to 2 years from the date of purchase. Solutions in DMSO or ethanol may be stored at -20°C for up to 3 months.

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