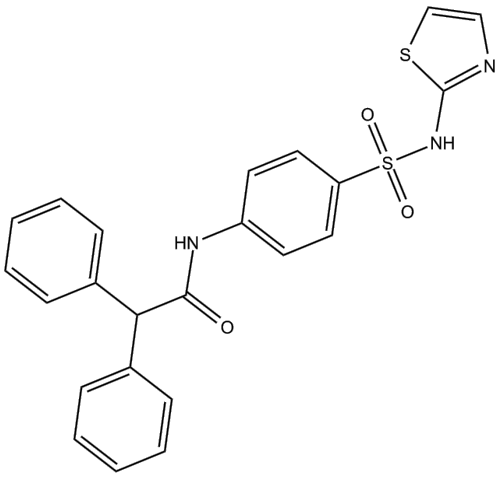
Product Data Sheet

Product Name: ICA 121431
Cat. No.: GC17395

Chemical Properties

Cas. No.	313254-51-2		
Chemical Name	2,2-diphenyl-N-(4-(N-(thiazol-2-yl)sulfamoyl)phenyl)acetamide		
SMILES	O=C(NC1=CC=C(S(NC2=NC=CS2)(=O)=O)C=C1)C(C3=CC=CC=C3)C4=CC=CC=C4		
Formula	$C_{23}H_{19}N_3O_3S_2$	M.Wt	449.55
Solubility	DMF: 15 mg/ml,DMSO: 15 mg/ml,DMSO:PBS (pH 7.2) (1:1): 0.5 mg/ml,Ethanol: 0.1 mg/ml	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure			

Background

ICA-121431 is a nanomolar potent small molecule Nav1.7 channel inhibitor with IC50 of 19 nM for rat Nav1.7, but no inhibition on human, monkey and dog Nav1.7.IC50 value: 19 nM (rat Nav1.7) [1]Target: rat Nav1.7 inhibitorICA-121431 exhibited a spectrum of inhibitory activity for Nav human

Product Data Sheet

channel subtypes; equipotent inhibition of Nav1.3 and Nav1.1, less potent inhibition of Nav1.2, and much weaker inhibition of Nav1.7, Nav1.6, Nav1.4, and the TTX-resistant human Nav1.5 and Nav1.8 channels (IC50s >10 μM). the unique subtype selective Nav channel inhibitors ICA-121431 and PF-04856264 interact with amino acid residues on an extracellular facing region of the homologous Domain 4 voltage sensor of Nav1.3 or Nav1.7, which is distinct from previously described interaction sites for TTX or local anesthetic-like Nav channel inhibitors.

References:

[1]. McCormack K, et al. Voltage sensor interaction site for selective small molecule inhibitors of voltage-gated sodium channels. Proc Natl Acad Sci U S A. 2013 Jul 16;110(29):E2724-32.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA