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DATASHEET

TRAM 34

Product overview

Name	TRAM 34
Cat No	HB1058
Biological action	Blocker
Purity	>99%
Description	Potent, selective $K_{Ca}3.1$ channel blocker

Images



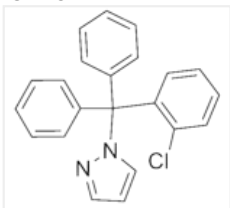
Biological Data

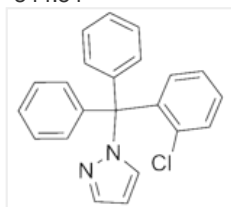
Biological description	Potent and selective $K_{Ca}3.1$ channel blocker ($IC_{50} = 18$ nM and $K_d = 20$ nM). Exhibits approx 200 to 1,500-fold less effect at $K_v1.1-1.5$, $K_v3.1$, $K_v4.2$, $K_{ir}2.1$ and $K_{Ca}1.1$ channels. Displays anti-tumor properties and suppresses T-cell mitogenesis. Blood brain barrier and membrane permeable.
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Solubility & Handling

Storage instructions	+4 °C
Solubility overview	Soluble in DMSO (50mM) or ethanol (10mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	1-[(2-Chlorophenyl)diphenylmethyl]-1 <i>H</i> -pyrazole
Molecular Weight	344.84
Chemical structure	



Molecular Formula	$C_{22}H_{17}ClN_2$
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CAS Number	289905-88-0
PubChem identifier	656734
SMILES	<chem>C1C(C=CC=C4)=C4C(N2C=CC=N2)(C3=CC=CC=C3)C1=CC=CC=C1</chem>
InChIKey	KBFUQFVIFYBHBT-UHFFFAOYSA-N

References

The inhibitor of Ca²⁺-dependent K⁺ channels TRAM-34 blocks growth of hepatocellular carcinoma cells via downregulation of estrogen receptor alpha mRNA and nuclear factor-kappaB.

Freise C *et al* (2013) Invest New Drugs 31(2)
PubMedID [23054207](#)

The KCa3.1 blocker TRAM-34 reduces infarction and neurological deficit in a rat model of ischemia/reperfusion stroke.

Chen YJ *et al* (2011) J Cereb Blood Flow Metab 31(12)
PubMedID [21750563](#)

The intermediate-conductance calcium-activated potassium channel KCa3.1 contributes to atherogenesis in mice and humans.

Toyama K *et al* (2008) J Clin Invest 118(9)
PubMedID [18688283](#)

Design of a potent and selective inhibitor of the intermediate-conductance Ca²⁺-activated K⁺ channel, IKCa1: a potential immunosuppressant.

Wulff H *et al* (2000) Proc Natl Acad Sci U S A 97(14)
PubMedID [10884437](#)
