

CERTIFICATE of ANALYSIS



PAG 4'-piperazine (hydrochloride)

Item No. 41881 * Batch No. 0722034

Purity Specification: $\geq 95\%$

Molecular formula: $C_{15}H_{20}N_4O_2 \cdot 2HCl$

CAS number: 2922286-32-4

Formula weight: 361.30

Expiration date: 19MAY2029

Overview

Tests

Results

HPLC

Purity: 96.5 %

Mass Spec

M+H: 289.2

NMR

Conforms

Counterion

Conforms

Reviewed and approved by: Erik Guetschow

WARNING

THIS PRODUCT IS FOR RESEARCH USE - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE. IT IS THE RESPONSIBILITY OF THE PURCHASER TO DETERMINE SUITABILITY FOR OTHER APPLICATIONS.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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