**Lorazepam-\textsuperscript{13}C_2-d_4**  
*Item No. 17965*

**Formal Name:** 7-chloro-5-(2-chlorophenyl-d_4)-3-hydroxy-1,3-dihydro-2H-benzo[e][1,4]diazepin-2-one-2,3-\textsuperscript{13}C_2  
**MF:** C_{13}\textsuperscript{13}C_2H_6D_4Cl_2N_2O_2  
**FW:** 327.2  
**Purity:** ≥98%  
**Supplied as:** A neat solid  
**Storage:** -20°C  
**Stability:** As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly

**Description**

Lorazepam-\textsuperscript{13}C_2-d_4 (Item No. 17965) is an analytical reference material that is structurally categorized as a benzodiazepine. It is intended for use as an internal standard for the quantification of lorazepam-\textsuperscript{13}C_2 by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Lorazepam is an anxiolytic compound that potentiates GABAergic synaptic transmission by binding at the benzodiazepine site on the GABA\textsubscript{A} receptor.\textsuperscript{1,2} This product is intended for research and forensic applications.

This product is a qualified Reference Material (RM) that has been manufactured and tested to meet ISO17025 and Guide 34 guidelines. These materials are tested using validated analytical methods on qualified instrumentation to ensure traceability of measurements. All traceable RMs may be distinguished by their CofAs and can be downloaded using the batch number located on the product label. For a representative CofA please contact our technical support.

**References**