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**Certificate of Analysis**

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Product Name: Methylnaltrexone Bromide  
Cat. No.: GC16177  
Batch No.: 1  
Chemical Name: (4R,4aS,7aR,12bS)-3-(cyclopropylmethyl)-4a,9-dihydroxy-3-methyl-2,4,5,6,7a,13-hexahydro-1H-4,12-methanobenzofuro[3,2-e]isoquinoline-3-ium-7-one;bromide

**PHYSICAL AND CHEMICAL PROPERTIES**

Cas. No.: 73232-52-7  
Molecular Formula:  $C_{21}H_{26}BrNO_4$   
Molecular Weight: 436.34  
Storage: Store at -20°C  
Chemical Structure:

**ANALYTICAL DATA**

Appearance:  
HNMR: Consistent with structure  
HPLC: Consistent with structure  
Conclusion: The product has been tested and complies with the given specifications.

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

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