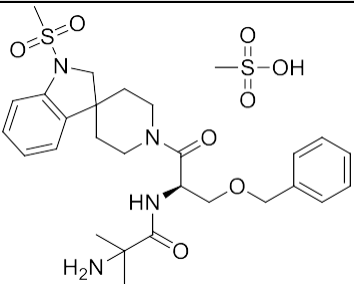


Certificate of Analysis

GCM Cat#:	Product Name:	Lot#
201684	Ibutamoren mesylate	021

Chemical name	
2-amino-2-methyl-N-[(2R)-1-(1-methylsulfonylspiro[2H-indole-3,4'-piperidine]-1'-yl)-1-oxo-3-(phenylmethoxy)propan-2-yl]propanamide mesylate.	
Synonyms	
Ibutamoren; L 163191; L163,191; L-163,191; MK0677; MK0677; MK-0677; MK-677; MK677; MK 677.	
Chemical structure	CAS# and Theoretical analysis
	GCM Cat#: 201684 Name: Ibutamoren mesylate CAS#: 159752-10-0 LOT#: 021 Chemical Formula: C ₂₈ H ₄₀ N ₄ O ₈ S ₂ Molecular Weight: 624.77 <i>Ibutamoren (free base)</i> Chemical Formula: C ₂₇ H ₃₆ N ₄ O ₅ S Exact Mass: 528.24064; Molecular Weight: 528.66

Analysis item	Specification	Results
Appearance	White solid powder	Complies
Structure	¹ H-NMR and MS spectrum of the sample correspond to the data reported in the literature	Complies
Purity (HPLC)	98%	>99.0%
Solubility	Soluble in DMSO, not soluble in water.	
Conclusion	This product conforms with GCM's quality standards	
Shipping condition	Shipped under ambient temperature as non-hazardous chemical. This product is stable for a few weeks during ordinary shipping and time spent in Customs.	
Storage condition	Short term storage (weeks): 0 – 4 °C under dry condition Long term storage (months): -20 °C under dry condition	
Self life	At least 5 years if properly stored.	

CAUTION: NOT FULLY TESTED. FOR RESEARCH ONLY, NOT FOR HUMAN USE

