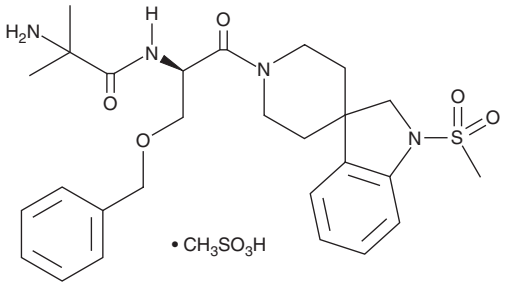
PRODUCT INFORMATION

Ibutamoren (mesylate)

Item No. 18003

CAS Registry No.:	159752-10-0
Formal Name:	2-amino-N-[(1R)-2-[1,2-dihydro-1-(methylsulfonyl)spiro[3H-indole-3,4'-piperidin]-1'-yl]-2-oxo-1-[(phenylmethoxy)methyl]ethyl]-2-methyl-propanamide, methanesulfonate
Synonyms:	L-163,191, MK-0677
MF:	$C_{27}H_{36}N_4O_5S \bullet CH_3SO_3H$
FW:	624.8
Purity:	≥98%
UV/Vis.:	λ_{max}: 232, 280 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Ibutamoren (mesylate) is supplied as a crystalline solid. A stock solution may be made by dissolving the ibutamoren (mesylate) in the solvent of choice, which should be purged with an inert gas. Ibutamoren (mesylate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of ibutamoren (mesylate) in ethanol is approximately 10 mg/ml and approximately 25 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of ibutamoren (mesylate) can be prepared by directly dissolving the crystalline solid aqueous buffers. The solubility of ibutamoren (mesylate) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Ghrelin is an endogenous ligand for the growth hormone (GH) secretagogue receptor (GHSR).[1] Ibutamoren is an orally-active, non-peptidic agonist of GHSR (K_d = 0.4 nM) and, as a result, is a GH secretagogue.[2,3] It elevates GH in dogs after oral doses as low as 0.125 mg/kg, without significantly changing plasma levels of aldosterone, luteinizing hormone, thyroxine, or prolactin.[4]

References

1. Kojima, M., Hosoda, H., Date, Y., *et al.* Ghrelin is a growth-hormone-releasing acylated peptide from stomach. *Nature* **402(6762)**, 656-660 (1999).
2. Howard, A.D., Feighner, S.D., Cully, D.F., *et al.* A receptor in pituitary and hypothalamus that functions in growth hormone release. *Science* **273(5277)**, 974-977 (1996).
3. Smith, R.G., Pong, S.-S., Hickey, G., *et al.* Modulation of pulsatile GH release through a novel receptor in hypothalamus and pituitary gland. *Recent Prog. Horm. Res.* **51**, 261-286 (1996).
4. Patchett, A.A., Nargund, R.P., Tata, J.R., *et al.* Design and biological activities of L-163,191 (MK-0677): A potent, orally active growth hormone secretagogue. *Proc. Natl. Acad. Sci. USA* **92(15)**, 7001-7005 (1995).

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