

MK-677 (ibutamoren)

MK-677 (ibutamoren) is an orally active small-molecule agonist of the ghrelin receptor that raises growth hormone and IGF-1 levels. It is not a peptide, and it is not approved for any use.

Formula	C ₂₇ H ₃₆ N ₄ O ₅ S
Average mass	528.67 g/mol
Evidence	Early clinical studies
US status	Not FDA-approved
WADA	Prohibited (S2)

Small molecule (ibutamoren); usually supplied as the mesylate salt. Not a peptide.

What the COA should show

Because MK-677 is a small molecule, the certificate of analysis should confirm identity by mass spectrometry with the expected mass for the free base and specify the salt form, usually mesylate, since the salt changes the mass of active compound per gram of powder. Identity is best supported by NMR or comparison with a reference standard in addition to MS. Purity should be reported by HPLC with UV detection. MK-677 has a defined stereocenter, so enantiomeric purity is relevant and requires a chiral method. Residual solvents and elemental impurities typical of small-molecule synthesis should also be considered.

Storage and stability

Store MK-677 as a dry solid in a tightly sealed container, protected from light and moisture; room temperature or refrigeration is generally adequate for a crystalline small-molecule salt, with -20 °C preferred for long-term reference material. Solutions in DMSO or other solvents for lab use should be aliquoted and stored at -20 °C or below. Stability data from the specific supplier and the material's documentation should take precedence over general guidance.

Full entry, references and latest research: <https://peptidewiki.net/compounds/mk-677/>
For laboratory research reference only. Not medical advice; not for human or veterinary use.