

Certificate of Analysis

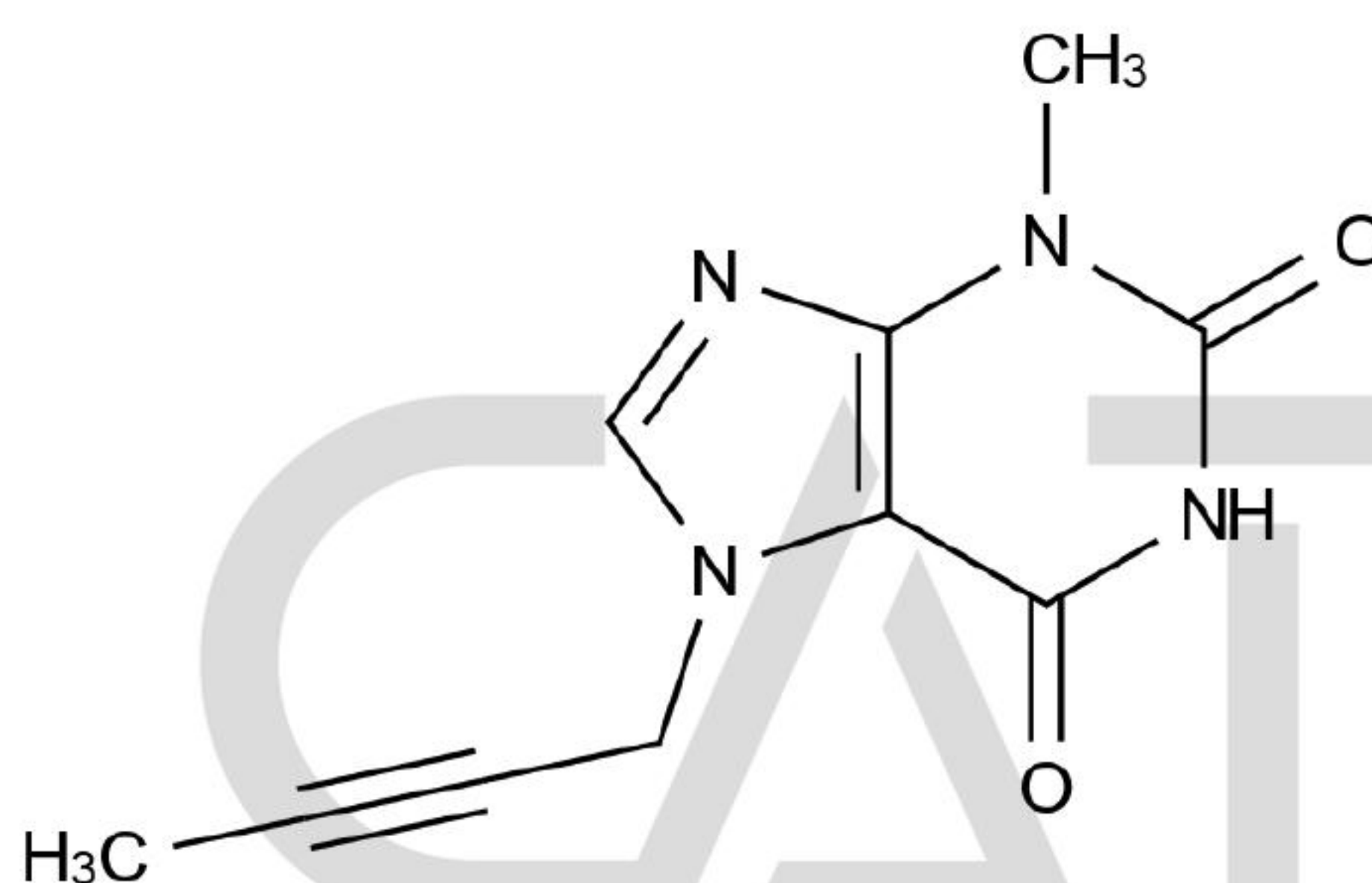
Reference Material & Standard

Product Name:	Linagliptin Impurity N31	Catalogue Number:	CP141291
Synonyms:	N/A	Lot Number:	0323-RH-0057
CAS Number:	586408-08-4	Expiry Date:	Apr 17, 2027
Molecular Formula:	C ₁₀ H ₁₀ N ₄ O ₂	Storage:	2°C ~ 8°C Protected from light and Sealed
Molecular Weight:	218.21	Shipping Condition:	Shipping at Room Temperature

Warning:



Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Off-White Solid
Identification	HRMS&IR&CNMR&HNMR	Confirmed
Purity	HPLC	99.30%
Loss On Drying	TGA	0.05582%
Assay		99.2%

Comment:

The calculation of the mass balance method follows the formula (calculated on the non-dried basis):

Assay (%) = (100% - Loss On Drying) * Purity HPLC (%) / 100%

Loss On Drying is considered as absolute effect, HPLC purity is considered as relative effect.

Signature:

Prepared by:

Reviewed by:

Approved by General Manager:

Date: Mar 24, 2026

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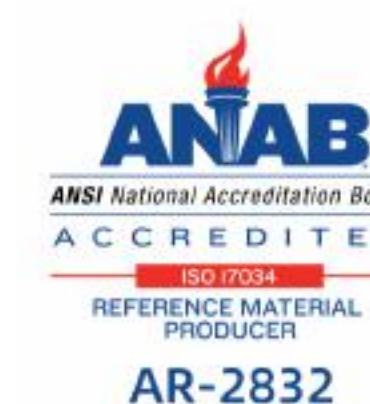
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