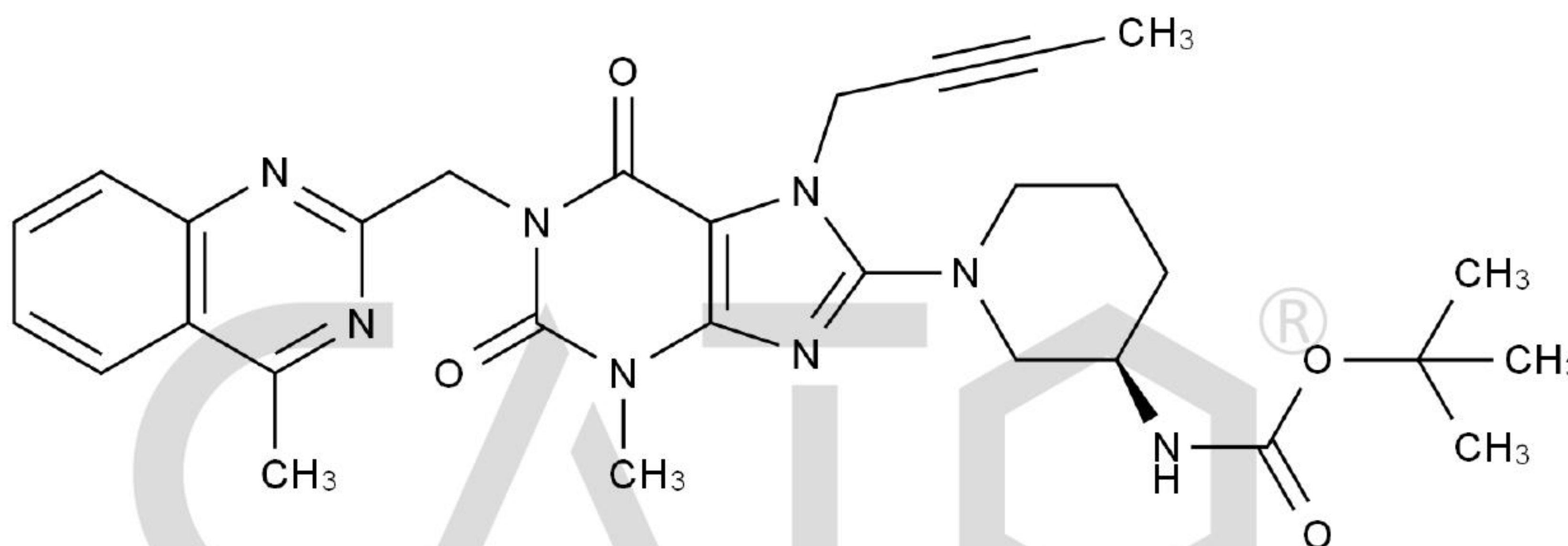


Certificate of Analysis

Reference Material & Standard

Product Name:	Linagliptin Impurity 46	Catalogue Number:	C4X-110146
Synonyms:	N/A	Lot Number:	1114-RA-0010
CAS Number:	668273-75-4	Expiry Date:	Mar 11, 2030
Molecular Formula:	C ₃₀ H ₃₆ N ₈ O ₄	Storage:	2°C ~ 8°C Protected from light and Sealed
Molecular Weight:	572.66	Shipping Condition:	Shipping at Room Temperature

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Light Yellow Solid
Identification	LCMS&IR&HNMR	Confirmed
Purity	HPLC	99.0926%
Loss On Drying	TGA	1.1103%
Assay		98.0%

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:

Koi

Reviewed by:

Lisa

Approved by General Manager:

David

Date: Mar 12, 2026

Date: Mar 12, 2026

Date: Mar 12, 2026



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