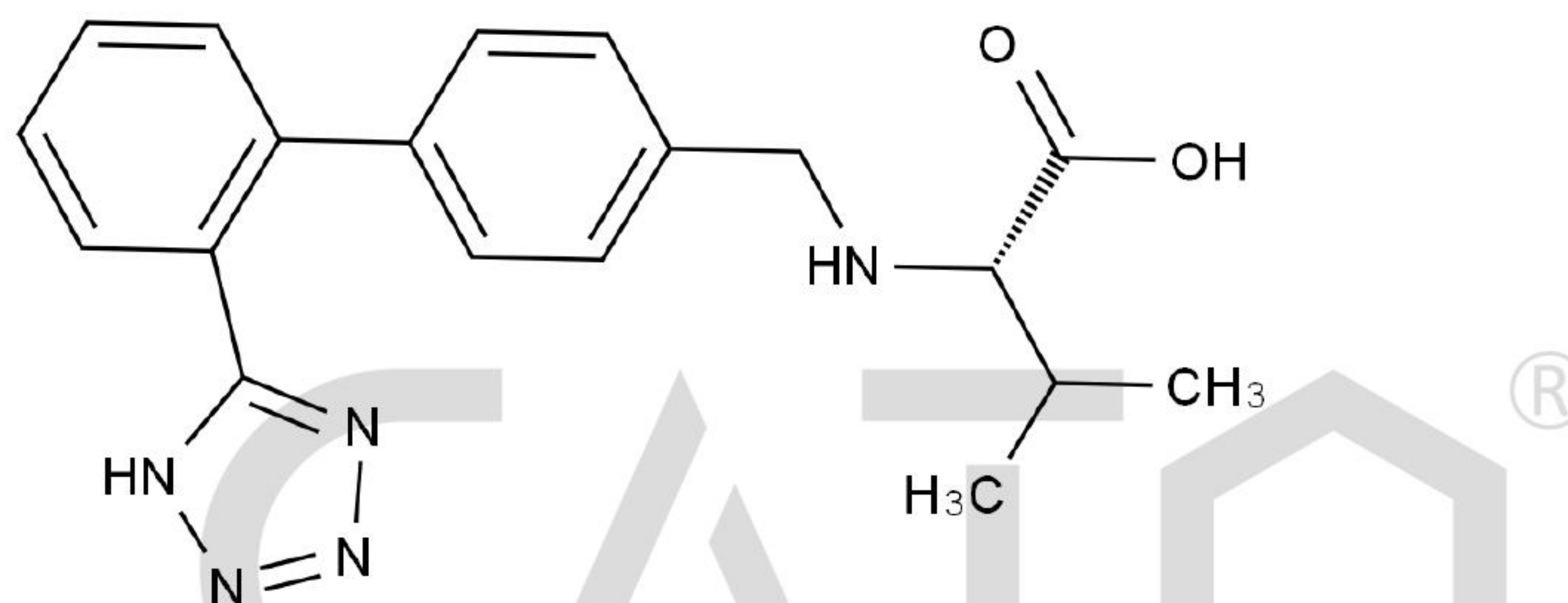


Certificate of Analysis

Reference Material & Standard

Product Name:	Valsartan impurity 5	Catalogue Number:	C4X-10575
Synonyms:	N-[[2'-(1H-tetrazole-5-yl)biphenyl-4-yl]methyl]-L-valine	Lot Number:	0911-RH-0084
CAS Number:	676129-92-3	Expiry Date:	Sep 19, 2030
Molecular Formula:	C ₁₉ H ₂₁ N ₅ O ₂	Storage:	2°C ~ 8°C Sealed
Molecular Weight:	351.40	Shipping Condition:	Shipping at Room Temperature
Solubility:	Soluble in DMSO		

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Light Yellow Solid
Identification	LCMS&IR&CNMR&HNMR	Confirmed
Purity	HPLC	99.490%
Water Content	Karl Fischer	2.2595%
Residual Solvents	NMR	2.00% dimethyl sulfoxide
Residue on Ignition	TGA	0.4096%
Assay	qNMR	94.9%
Assay	Mass Balance	94.8%

Comment:

- The retest date of this product is Sep 19, 2029.
- The calculation of the mass balance method follows the formula (calculated on the non-dried basis):

$$\text{Assay (\%)} = (100\% - \text{Water Content} - \text{Residual Solvents} - \text{Residue on Ignition}) * \text{Purity HPLC (\%)} / 100\%$$

Water Content, Residual Solvents and Residue on Ignition are considered as absolute effect, HPLC purity is considered as relative effect.

Signature:

Prepared by:

Koi

Reviewed by:

Alice

Approved by General Manager:

David

Date: Oct 08, 2026

Date: Oct 08, 2026

Date: Oct 08, 2026



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