


# CERTIFICATE OF ANALYSIS

Date: 08-08-2025

Product Name	Tacrolimus EP Impurity D		
Chemical Name	(3S,4R,5S,8S,9E,12S,14S,15R,16S,18R,19R,26aS)-5,19-Dihydroxy-3-[(1E)-1-[(1R,3R,4R)-4-hydroxy-3-methoxycyclohexyl]prop-1-en-2-yl]-14,16-dimethoxy-4,10,12,18-tetramethyl-8-(prop-2-en-1-yl)-3,4,5,6,8,11,12,13,14,15,16,17,18,19,24,25,26,26a-octadecahydro-7H-15,19-epoxypyrido[2,1-c][1,4]oxaazacyclotricosine-1,7,20,21(23H)-tetrone ; (3S,4R,5S,8S,9E,12S,14S,15R,16S,18R,19R,26aS)-8-Allyl-5,6,8,11,12,13,14,15,16,17,18,19,24,25,26,26a-hexadecahydro-5,19-dihydroxy-3-{(E)-2-[(1R,3R,4R)-4-hydroxy-3-methoxycyclohexyl]-1-methylvinyl}-14,16-dimethoxy-4,10,12,18-tetramethyl-15,19-epoxy-3H-pyrido[2,1-c][1,4]oxaazacyclotricosine-1,7,20,21(4H,23H)-tetrone (as per USP)		
Structure			
Batch. No.	-	CAS No.	129212-35-7
Analysis Date	-	Retest Date	2
Mol. Formula	C <sub>44</sub> H <sub>69</sub> NO <sub>12</sub>	Molecular Wt.	804
Long term Storage Condition		Store at 2-8 °C in well closed container	
Handling and Transit Condition		25-30 °C in well closed container	

Test	Result
Appearance	-
Solubility	-
<sup>1</sup> H-NMR	Conforms to structure
MASS	Conforms to structure
Chromatographic Purity	>90%
<b>Note: This material should be used for research purpose and not for human or animal consumption. Any patent applicable for this product in any country is not applicable for this analytical standard/research chemical.</b>	

	Prepared By	Checked By	Approved By
Signature			
Date			