

DERREN HEALTHCARE PVT. LTD.

Plot No. #33, 35/p & 36/p XCELON Industrial Park, Lane besides Chak-de-India Weighbridge, Sarkhej-Bavla Highway Village: Vasna-Chachrawadi, Ahmedabad-382 213, Gujarat (India)

CERTIFICATE OF ANALYSIS

(FINISHED PRODUCT)

Name of Product	Atracurium Besylate Injection 10 mg/ml		
Batch No.	BS24001	A.R. No.	FP/24/0012
Mfg. Date	02/24	Exp. Date	01/26
Sampled Qty.	41 Nos.	Date of Analysis	16/02/24
Batch Size	100 Ltr.	Date of Release	01/03/24
Container Type	Clear Glass Ampoule	Fill volume	5.0 ML
Mfg. Lic. No.	G/28/1862	****	

Test	Result	Specification	
Description	Clear & colorless liquid free from visible particles and fibers.	Clear & colorless liquid free from visible particles and fibers.	
Extractable volume	5.0 ml	NLT 5.0 ml	
Identification			
Identification A By HPLC	The principal peaks of three isomers of attracurium besylate in the chromatogram obtained with the test solution is corresponds to the peaks in the chromatogram obtained with the reference solution	The principal peaks of three isomers of attracurium besylate in the chromatogram obtained with the test solution should be corresponds to the peaks in the chromatogram obtained with the reference solution	
pН	3.36	3.0 to 3.65	
Related Substance			
Test - 1			
Acidic Compound	0.06 %	NMT 6.0%	
Sum of Hydroxy compound trans-isomers and cis isomer	0.13 %	NMT 6.0%	
laudanosine	0.15 %	NMT 3.0%	
Sum of Monoacrylate trans-isomers and cis isomer	0.46 %	NMT 3.0%	
Any other Impurity	0.07 %	NMT 0.1%	
Total impurity	1.04 %	NMT 15.0%	
Test - 2	,		
Atracurium Impurity-A	0.01 %	NMT 1.50%	
Atracurium Impurity-K		NMT 1.50%	
Atracurium Impurity-I	0.38 % (Imp I + Imp H + Imp K)	NMT 1.00%	
Atracurium Impurity-H		NMT 1.00%	
	Extractable volume Identification Identification A By HPLC PH Related Substance Test - 1 Acidic Compound Sum of Hydroxy compound trans-isomers and cis isomer laudanosine Sum of Monoacrylate trans-isomers and cis isomer Any other Impurity Total impurity Test - 2 Atracurium Impurity-K Atracurium Impurity-I	Description Extractable volume Identification Identification A By HPLC Identification A By HPLC Identification A By HPLC In principal peaks of three isomers of attracurium besylate in the chromatogram obtained with the test solution is corresponds to the peaks in the chromatogram obtained with the reference solution PH 3.36 Related Substance Test - 1 Acidic Compound 0.06 % Sum of Hydroxy compound trans-isomers and cis isomer laudanosine 0.15 % Sum of Monoacrylate trans-isomers and cis isomer Any other Impurity 0.07 % Total impurity 1.04 % Test - 2 Atracurium Impurity-A 0.01 % Atracurium Impurity-K Atracurium Impurity-I 0.38 % (Imp I + Imp H + Imp K)	

Format No.: DHPL/QCD/023/F23/00



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	Atracurium Impurity-F	Not detected	NMT 1.00%
6	Bacterial endotoxin	Less than 5.56 EU/mg of Attracurium	NMT 5.56 EU/mg of Attracurium
7	Particulate matter		
7.1	By Visual Inspection	The solution is free from particles that is observed by inspection with the unaided eye.	The solution should be free from particles that can be observed by inspection with the unaided eye.
7.2	By Light Obscuration Method	≥10 microns= 86.00 /Container ≥ 25 Microns= 2.00 /Container	Sub visible particle by LPC ≥10 microns=NMT 6000/Container ≥ 25 Microns=NMT 600/Container
8	Sterility test	Sterile	Should be sterile
9	Assay		
	Each ml contains Attracurium besylate (eq. Attracurium IP 10 mg)	99.9 %	90.0% To 115.0 % of the labeled amount of Attracurium
9.1	Trans- trans isomer	5.87 %	Not less than 5.0% and Not more than 6.5%.
	cis-trans isomer	36.84 %	Not less than 34.5% and Not more than 38.5%.
	cis-cis isomer	57.20 %	Not less than 55.0% and Not more than 60.0%.

Conclusion: The above sample complies as per IP specification.

In the opinion of the undersigned the sample referred to above is of standard / not of standard quality as defined in the act and the rules made there under for the reasons given above.

By Approxed By Approxed By
18/
124 QUALITY
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С

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