Valid from: HSA/LC 01-10-2012 Replaces: HSA/LC 21-10-2011

Batch Release Certificate

Product name: Dextran 40 JP

Specification No.: 40010

Batch No.: xxxxxx mmmm_yyyy Retest date (3 years): xxxxxx mmmm_yyyy

Manufacturing sites: Pharmacosmos A/S, Roervangsvej 30, DK-4300 Holbaek, Denmark

DKMA* No.: 25462

GMP certificate No.: DK API-H 00010511, DK API-V 00010511

FDA establishment No.: FEI 3003233785 FDA facility classification: Acceptable

EDQM* certificate No.: Certificates for Dextran 1, 40, 60 & 70 Ph.Eur. available

Method:	Parameter:	Results of analysis:		Limits:
JP	Appearance of solution:	Complies		Clear and colorless
JP	Identification:	Complies	**	Complies
JP	Assay (dextran after drying, % w/w):	X.X		98 – 102
JP	Average molecular mass, Mw:	x,xxx		app. 40,000
JP	Viscosity, intrinsic, dL/g:	x.xx		0.16 – 0.19
JP	Viscosity, intrinsic, high fraction, dL/g:	x.xx		≤0.27
JP	Viscosity, intrinsic low fraction, dL/g:	x.xx		≥0.09
JP	pH (10% solution):	x.x		5.0 - 7.0
JP	Nitrogen containing substances, ppm	x		≤100
JP	Chloride, % w/w:	Complies		≤0.018
JP	Reducing substances per g:	Complies		≤15 (mg glucose)
JP	Heavy metals, ppm lead:	x		≤20
JP	Arsenic, ppm:	Complies		≤1.3
JP	Loss on drying (105°C, 6h), % w/w:	x.x		≤5.0
JP	Residue on ignition, % w/w:	x.xx		≤0.10
JP	Pyrogenes (groups of 3 rabbits):	Complies	**	Complies
EP	Bacterial endotoxins, IU/g:	Complies		<10
JP	Antigenicity:	Complies	**	Complies

References to official monographs are to be considered as current editions.

We hereby confirm that no class 1, class 2 and class 3 solvent, cf. ICH Q3C and VICH GL 18, is used in the manufacturing of this product.

I hereby certify that the above information is authentic and accurate. This batch of Active Pharmaceutical Ingredient has been manufactured, including packaging and quality control at the above mentioned site in full compliance with the GMP requirements for active starting materials and with the above mentioned specifications. The batch processing, packaging and analysis records were reviewed and found to be in compliance with GMP.

Date (dd.mm.yyyy):	
· , , , , , , , , , , , , , , , , , , ,	Qualified Person, Kim Nordfield, Ph.D., Pharmacy

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^{*)} EDQM refers to 'European Directorate for the Quality of Medicines and healthcare'. DKMA refers to 'Danish Medicines Agency'.

^{**)} Test is not carried out routinely.