

PR#: 14063 Deviation No.:D-2021-0224

Record Status: Deviation Investigation in Progress

### 基本信息 General Information

厂区 Division: Innovent Biologics (Su Zhou) Co., Ltd

发起人 Originator: 胡, 传峰(PID-000249) 发起日期 Date Opened: 2021.05.08

简短描述 Short Description:

M1b DS2 IBI305 HIC wash阶段线性流速超出工艺规程上限IBI305 HIC wash linear flow rate beyond the upper limit of PFD00097

到期日期 Date Due: 2021.07.15 关闭日期 Date Closed:

#### 偏差信息 Deviation Information

发现人 Discovery By:陆波 05030014发现日期 Discovery On: 2021.05.07汇报人Report By:陆波 05030014汇报日期 Report On: 2021.05.07

发生部门 Occurred Department: M1b DS2 汇报部门 Report Department: M1b DS2

偏差描述 Deviation Description:

2021.05.06 23:15 QA人员(20002213)审核IBI305 DS2103010批次层析系统电子数据时发现HIC wash阶段的流速波动异常。上报后纯化人员(05030014)于2021.05.07 15:50确认IBI305 DS2103010批次HIC wash步骤过程中的流速波动范围在314.1 L/hour~1170.5 L/hour,超出《贝伐珠单抗注射液M1b 3000L 纯化工艺规程》 (PFD00097)中要求HIC线性流速47~125cm/h(经换算为236 L/hour~628 L/hour)上限范围,故发起偏差调查。

描述的附件 Description attachment:

是否及时上报? Reporting in Time?: Yes

未及时上报的理由 Reason for not in Time:

已采取的即时措施 Immediately Action Taken:

即时措施附件 Immediately Action Attachment:

厂房设施名称 Facility Name: 产品所属阶段 Product Phase:

M1b Commercial

### 初步影响/风险评估Initial Impact/Risk Assessment

产品影响评估 Product Impact Assessment:

从《贝伐珠单抗注射液M1b3000L原液工艺验证报告》(VALR00093)可知(详见附件2),IBI305阳离子收集液即可满足原液质量标准,疏水层析步骤提供了冗余的工艺控制能力。本偏差中IBI305 DS2103010 疏水层析Wash步骤的线性流速超出工艺规程上限值,针对产品质量的影响评估已制定偏差行动项(记录ID:14095),送HIC收集液留样至QC,检测疏水层析收集液的HCP残留,DNA残留和ProA残留。对于产品质量的影响需要后续调查中进行评估。

生产/检测的影响评估 Production/Testing Impact Assessment:

IBI305工艺中疏水层析线性流速定义为CPP的依据,查阅《IBI305下游晚期工艺特性研究报告》(IDC-PD-3-IBI305-R-002-01)(详见附件3)可知,线性流速(保留时间)主要影响的是收率及柱压。疏水层析wash过程中的柱前压力没有超过规定值上限3.5bar,wash阶段运行过程中疏水层析没有因为流速的波动而导致层析暂停。同时,本批记录DS2103010的疏水层析的收率为99.4%。本批次疏水层析收率及柱压图详见附件1,柱压和收率这两个工艺性能未受影响。wash阶段后的洗脱等步骤正常运行,未影响后续的生产活动。

其他影响评估描述 Other Impact Assessment Description:

本次工艺HIC wash步骤过程中的流速波动范围在314.1 L/hour~1170.5 L/hour,不在《贝伐珠单抗注射液制造与检定规程》 中要求HIC线性流速47~125cm/h(经换算为236 L/hour~628 L/hour) 范围内。本次偏差不会触发注册的制造检定规程修改或工艺变更,故对注册无影响。



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初步影响评估附件 Initial Impact Assessment Attachment:

附件2 DS2103010 HIC wash步骤流速偏差的初步产品影响评估-工艺验证报告.docx

附件1 DS2103010 HIC wash步骤流速偏差的初步产品影响评估-HIC图谱.docx

附件3 DS2103010 HIC wash步骤流速偏差的初步产品影响评估-工艺特性研究报告.docx

#### 偏差分级 Deviation Classification

偏差严重性 Deviation Severity:

- 1、从《贝伐珠单抗注射液M1b3000L原液工艺验证报告》(VALR00093)可知(详见附件2),IBI305阳离子收集液即可满足原液质量标准,疏水层析步骤提供了冗余的工艺控制能力。本偏差中IBI305 DS2103010 疏水层析Wash步骤的线性流速超出工艺规程上限值,针对产品质量的影响评估已制定偏差行动项(记录ID:14095),送HIC收集液留样至QC,检测疏水层析收集液的HCP残留,DNA残留和ProA残留。对于产品质量的影响需要后续调查中进行评估。
- 2、IBI305工艺中疏水层析线性流速定义为CPP的依据,查阅《IBI305下游晚期工艺特性研究报告》(IDC-PD-3-IBI305-R-002-01)(详见附件3)可知,线性流速(保留时间)主要影响的是收率及柱压。疏水层析wash过程中的柱前压力没有超过规定值上限3.5bar,wash阶段运行过程中疏水层析没有因为流速的波动而导致层析暂停。同时,本批记录DS2103010的疏水层析的收率为99.4%。本批次疏水层析收率及柱压图详见附件1,柱压和收率这两个工艺性能未受影响。wash阶段后的洗脱等步骤正常运行,未影响后续的生产活动。
- 3、本次工艺HIC wash步骤过程中的流速波动范围在314.1 L/hour~1170.5 L/hour,不在《贝伐珠单抗注射液制造与检定规程》中要求HIC线性流速47~125cm/h(经换算为236 L/hour~628 L/hour)范围内。本次偏差不会触发注册的制造检定规程修改或工艺变更,故对注册无影响。

偏差发生率 Reoccurrence Probability of Deviation:

过去12个月类似缺陷回顾(关键词搜索:M1b、IBI305、HIC wash、流速、超上限),未发生类似缺陷。

偏差分级 Deviation Classification: Critical

分级的理由 Reason for Classification:

05/10/2021 06:01 PM (GMT+8:00) added by 四弟 李 (PID-000227):

该偏差对于产品质量的影响需要后续调查中进行评估,考虑到线性流速为WC-CPP,超出检定规程要求,根据SMP00090《偏差管理规程》,定义为严重偏差。

是否需要调查? Investigation Required?: Yes

主调查人 Lead investigator: 宋, 健

不需要调查的理由 Reason for not Investigation:

#### 调查总结&根本原因分析 Investigation & RCA

调查总结 Investigation Summary:

调查附件 Investigation Attachments:

根本原因分析 Root Cause Analysis:

根本原因分析附件 Root Cause Analysis Attachment:

原因描述 Cause Description:

原因分类 Cause Category 原因子分类 Cause Sub-Category 原因归属部门 Cause Department



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缺陷描述 Defect Description:

QA人员(20002213) 审核IBI305 DS2103010批次层析系统电子数据时发现HIC wash阶段的流速波动异常。上报后纯化人 员(05030014)于2021.05.07 15:50确认IBI305 DS2103010批次HIC wash步骤过程中的流速波动范围在314.1 L/hour~1170.5 L/hour,超出《贝伐珠单抗注射液M1b 3000L 纯化工艺规程》(PFD00097)中要求HIC线性流速47~125cm/h(经换算为236

L/hour~628 L/hour)上限范

缺陷类型分类 Defect Category 缺陷类型子分类 Defect Sub-Category

Production/Process Operation

是否是重复偏差	Repeat	Deviation?	
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判定重复偏差的原因 Justification for Repeat Deviation:

重复偏差的原因描述 Reason of Repeat Deviation Description:

相关的重复偏差 Repeat Deviation Records

PR#	deviation#	简短描述 Short Description	Record Status
最终影响/风险评价	古 Final Impact/Risk Assessm	ent	
对产品质量的影响	Impact on Product Quality:		
对其他批次的影响	Impact on Other Batches:		
对系统/设备的影响	向 Impact on System/Equipmer	nt:	
对验证状态的影响	Impact on Validation State:		
对产品注册的影响	Impact on Product Registration	on:	
对法规符合性的影	响 Impact on Regulation Com	pliance:	
对稳定性的影响 li	mpact on Stability:		
对其他方面的影响	Impact on Other Aspects:		

影响/风险评估附件 Impact/Risk Assessment Attachment:

受影响的部门 Impact Departments:



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#### 受影响的产品信息 Impacted Product Information

产品最终处置建议 Product Disposition Proposal:

产品名称 Product Name: 贝伐珠单抗注射液M1b 3001L原液(商业化)

产品代码 Product Code 产品批号 Batch No.: 数量 Quantity 处理决定 Disposition

DS30-305 DS2103010 3000L

### 受影响的物料信息 Impacted Material Information

物料名称 Material Name:

物料代码 Product Code 批号 Batch No.: 数量 Quantity

### 受影响的溶液信息 Impacted Media/Buffer Information

溶液名称 Media/Buffer Name:

### 受影响的设备信息 Impacted Equipment Information

设备名称 Equipment Name: 缓冲液暂存罐 (1000L) 设备代码 Equipment Code MFG-M1b3-088

### 偏差处理措施 Deviation Action Items

PR#: 14095

责任人 Assigned To: 胡, 传峰(PID-000249)部门 Department:M1b DS2截止日期 Date Due:2021.05.10完成日期 Completed Date:2021.05.09

确认人 Verified By: 邓, 陈琪(PID-000209) 确认日期 Verified On: 2021.05.09

行动项详细描述 Action Description:

根据《贝伐珠单抗注射液M1b 3000L原液工艺验证报告》(VALR00093)中针对疏水层析的功能申明,将IBI305

DS2103010批次疏水收集液留样送至QC,检测HCP残留、DNA残留和Pro A残留。

#### 纠正信息 Correction Information

PR#:

责任人 Assigned To: 部门 Department:

截止日期 Date Due: 完成日期 Completed Date:



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确认人 Verified By: 确认日期 Verified On:

行动项详细描述 Action Description:

## 纠正与预防措施 CAPA

PR#:

责任人 Assigned To: 部门 Department:

截止日期 Date Due:

行动项详细描述 Action Description:

## 附件 File Attachments

关联记录 F	Reference	Record	S
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PR# Record Type 简短描述 Short Description Record Status

### 相关子记录 Related children

<b>PR#</b> 14095	Record Type Deviation Action Items	<b>简短描述 Short Description</b> 送HIC收集液留样检测中间体质量 send reserved HIC pool sample and test intermediate quality attribute	Record Status Closed-Done
15335	Interim Investigation Report	D-2021-0224第01次阶段性报告D-2021-0224 Periodic Report 01	Closed-Done



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Initial Approval			
QA Initial Review			
Area QA Initial Reviewed By:	邓, 陈琪	Area QA Initial Reviewed On:	2021.05.08 19:25
Classify Completed By:	李, 四弟	Classify Completed On:	2021.05.10 18:05
<b>Department Initial Review</b>			
Department Leader 1 Reviewed By:	康, 云	Department Leader 1 Reviewed On:	2021.05.10 21:17
Department Leader 2 Reviewed By:		Department Leader 2 Reviewed On:	
Department Leader 3 Reviewed By:		Department Leader 3 Reviewed On:	
Department Leader 4 Reviewed By:		Department Leader 4 Reviewed On:	
Department Leader 5 Reviewed By:		Department Leader 5 Reviewed On:	
Area QA Leader Reviewed By:	代, 圆圆	Area QA Leader Reviewed On:	2021.05.10 19:40
Quality Initial Approval			
Quality Approver 1 Approved By:	高, 剑锋	Quality Approver 1 Approved On:	2021.05.11 08:51
Quality Approver 2 Approved By:		Quality Approver 2 Approved On:	
Quality Approver 3 Approved By:		Quality Approver 3 Approved On:	
Final Approval			
QA Final Review			
QA Final Reviewed By:		QA Final Reviewed On:	
Investigator Final Review			
QA Representative Reviewed By:		QA Representative Reviewed On:	
Investigator 1 Reviewed By:		Investigator 1 Reviewed On:	
Investigator 2 Reviewed By:		Investigator 2 Reviewed On:	
Investigator 3 Reviewed By:		Investigator 3 Reviewed On:	
Investigator 4 Reviewed By:		Investigator 4 Reviewed On:	
Investigator 5 Reviewed By:		Investigator 5 Reviewed On:	
Investigator 6 Reviewed By:		Investigator 6 Reviewed On:	
Investigator 7 Reviewed By:		Investigator 7 Reviewed On:	
Investigator 8 Reviewed By:		Investigator 8 Reviewed On:	
Department Final Approval			
Department Leader 1 Final Approved By	y:	Department Leader 1 Final Approved Or	1:
Department Leader 2 Final Approved By	y:	Department Leader 2 Final Approved Or	n:
Department Leader 3 Final Approved By	y:	Department Leader 3 Final Approved Or	n:
Department Leader 4 Final Approved By	y:	Department Leader 4 Final Approved Or	n:
Department Leader 5 Final Approved B	y:	Department Leader 5 Final Approved Or	n:
<b>Quality Final Approval</b>			

#### **Quality Final Approval**

Quality Approver 1 Final Approved By: Quality Approver 1 Final Approved On:

Quality Approver 2 Final Approved By: Quality Approver 2 Final Approved On:



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Record Status: Deviation Investigation in Progress

Quality Approver 3 Final Approved By: Quality Approver 3 Final Approved On:

**Product Final Disposition** 

Disposition Proposed By:

Proposal Reviewed By:

Disposition Proposed On:

Proposal Reviewed On:

Product Disposition Approved By: Product Disposition Approved On: