

## **DBSQ/OCBQ ANALYTICAL METHOD REVIEW MEMO**

**To:** STN 125789/0

**From:** M. Nahid Parvin, Ph.D., LBVI/DBSQ/OCBQ/CBER

**Through:** Muhammad Shahabuddin, Ph.D., Lab Chief, LBVI/DBSQ/OCBQ/CBER  
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**Product:** TECELRA

**Applicant:** Adaptimmune

**Subject:** Review of Analytical Methods used for afamitresgene autoleucel (TECELRA)  
MAGE-A4-c1032 lentiviral vector Lot Release


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**Recommendation:** Approval

### **Executive Summary:**

The following analytical methods used for release of MAGE-A4-c1032 lentiviral vector that is used in production of afamitresgene autoleucel and the analytical method validations, were reviewed:

1. (b) (4)

A large rectangular area of the document is redacted with a solid grey box, covering the details of the analytical methods reviewed.

**Conclusion:** The analytical methods and their validations reviewed for release of MAGE-A4-c1032 lentiviral vector were found to be adequate for their intended use.

### **Documents Reviewed:**

Information in sections of the original submission that describe control of DS (3.2.S.4), including descriptions of starting material specifications, analytical procedures of DS and validation of analytical procedures were reviewed. Additional information in amendments #125789/0.26 and #125789/0.43 received on April 24, and May 30, 2024, were also reviewed.

**Background:**

Adaptimmune submitted original BLA on December 23, 2023, STN 125789 for afamitresgene autoleucel (TECELRA), for the treatment of adult patients with unresectable or metastatic synovial sarcoma who have received prior systemic therapy, are positive for HLA-A\*02:01P, -A\*02:02P, -A\*02:03P, or -A\*02:06P, negative for HLA A\* 02:05P, and whose tumor expresses the MAGE-A4 antigen as detected by an FDA-approved test. Exagamglogene autotemcel holds orphan drug designation.

The active substance (afamitresgene autoleucel) is a genetically modified autologous T-cell immunotherapy consisting of CD4 and CD8 positive T-cells transduced with a self-inactivating lentiviral vector expressing an enhanced affinity T-cell receptor (TCR) specific for the human melanoma-associated antigen A4 (MAGE-A4)



MAGE-A4-c1032 lentiviral vector is produced by (b) (4)



Autologous T-cells transduced with the lentiviral vector express the enhanced-affinity TCR on the cell surface. The TCR recognizes an HLA-A\*02 restricted MAGE-A4 peptide. MAGE-A4 is an intracellular cancer-testis antigen that has restricted expression in normal tissues and is expressed across a range of solid tumors at varying frequencies. In vitro, antigen-specific activation of afamitresgene autoleucel, via TCR-peptide-HLA-A\*02 complex, results in T-cell proliferation, cytokine secretion, and killing of MAGE-A4/HLA-A\*02 expressing cancer cells.

(b) (4) . The analytical methods and their validations used to determine the (b) (4) in the final lentiviral vector product are reviewed in this memo.

(b) (4)



17 pages determined to be not releasable: (b)(4)