



Certificate of Analysis

Product name: Atezolizumab
Batch No. 201801
Manufacture Date 2018/05/23
Expire Date 2020/05/22
Storage condition Sealed and stored at -70 ± 15 °C

| Test items | Quality standard | Results |
|-----------------------------------|---|-------------|
| 1. Concentration | 60.0 ± 6.0 mg/ml | 61.0 mg/ml |
| 2. pH value | Corresponds to reference standard | Pass |
| 3. Purity | | |
| 3.1 Non-reduced CE-SDS | Main peak NLT 90.0% | 98.4% |
| 3.2 SEC-HPLC | Main peak NLT 95.0% | 99.1% |
| 4. Isoelectric Point | Corresponds to reference standard | Pass |
| 5. Bacterial Endotoxins Test | < 5 EU/ml | < 1 EU/ml |
| 6. Residual Proteins of Host Cell | ≤ 100 ng/mg | 1 ng/mg |
| 7. Exogenous Residual DNA | ≤ 100 pg/mg | < 1 pg/mg |
| 8. Residual protein A | ≤ 100 ng/mg | < 1 ng/mg |
| 9. Biological Activity | Compared with standard, the range of biological activity is from 80% to 125%. | 113% |
| 10. Osmolality | Corresponds to reference standard | Pass |
| 11. Peptide mapping | Corresponds to reference standard | Pass |
| 12. N-terminal sequence | Corresponds to reference standard | Pass |

Reported by/Date
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2018/06/10

Approved by/Date
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2018/06/10