

## COA 质量检验报告



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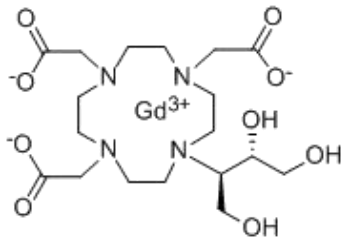
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## CERTIFICATE OF ANALYSIS

|                                                 |                                                                                                                                 |           |                                                                                     |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------|
| Product Name:                                   | Gadobutrol                                                                                                                      |           |  |
| Molecular Formula:                              | C18H31N4O9.Gd                                                                                                                   |           |                                                                                     |
| Molecular Weigh:                                | 604.712                                                                                                                         |           |                                                                                     |
| Batch No.:                                      | 25091705                                                                                                                        | CAS No:   | 138071-82-6                                                                         |
| Mfg. Date:                                      | 2025-09-17                                                                                                                      |           |                                                                                     |
| Date of Report:                                 | 2025-09-20                                                                                                                      | Quantity: | 200kg                                                                               |
| Expired Date:                                   | 2027-09-17                                                                                                                      | Package:  | Drum                                                                                |
| Item                                            | Specifications                                                                                                                  |           | Results                                                                             |
| Appearance                                      | white or off-white powder                                                                                                       |           | white powder                                                                        |
| Solubility                                      | Freely soluble in water practically insoluble in anhydrous ethanol and in heptane                                               |           | Conforms                                                                            |
| Identification                                  |                                                                                                                                 |           |                                                                                     |
| Infrared Spectroscopy                           | It is consistent with that of the reference standard                                                                            |           | Conforms                                                                            |
| HPLC Identification                             | The retention time of the major peak of the Sample solution corresponds to that of the Standard solution as obtain in the Assay |           | Conforms                                                                            |
| Test                                            |                                                                                                                                 |           |                                                                                     |
| Specific optical rotation (anhydrous substance) | -0.05°~+0.05°                                                                                                                   |           | 0.00°                                                                               |
| Water                                           | 2.0%~7.0%                                                                                                                       |           | 3.0%                                                                                |
| Free gadolinium (anhydrous substance)           | NMT 0.01%                                                                                                                       |           | ND                                                                                  |

|                            |                                                                                                       |                   |
|----------------------------|-------------------------------------------------------------------------------------------------------|-------------------|
| <b>Related substances</b>  | Impurity A NMT 0.05%                                                                                  | ND                |
|                            | Impurity B NMT 0.05%                                                                                  | ND                |
|                            | Impurity C NMT 0.05%                                                                                  | ND                |
|                            | DOTA-Gd NMT 0.05%                                                                                     | ND                |
|                            | Any Individual Impurity NMT 0.05%                                                                     | ND                |
|                            | Total impurities NMT0.3%                                                                              | ND                |
| <b>Residual Solvent</b>    | Benzene NMT0.000157%                                                                                  | ND                |
|                            | Ethanol NMT 0.3937%                                                                                   | 0.07%             |
| <b>Purity</b>              | C <sub>18</sub> H <sub>3</sub> GdN <sub>4</sub> O <sub>9</sub> :97.5%~102.5%<br>(anhydrous substance) | 100.4%            |
|                            | Gd:98.0%~102.0%(anhydrous substance)                                                                  | 99.6%             |
| <b>Bacterial endotoxin</b> | Less than 1.3EU/g                                                                                     | Conforms          |
| <b>Microorganism</b>       |                                                                                                       |                   |
| <b>TAMC</b>                | NMT 100 CFU/g                                                                                         | 6 CFU/g           |
| <b>TYMC</b>                | NMT 10 CFU/g                                                                                          | Less than 1 CFU/g |
| <b>E.Coli.</b>             | Should not be detected in each gram                                                                   | ND                |
| <b>Storage Conditions</b>  | In an airtight container protected from light                                                         |                   |
| <b>Conclusion</b>          | Conforms to the EP 11.0 monograph for Gadobutrol Monohydrate                                          |                   |

