

## Certificate of Analysis

Date of Testing: 2023-06-05 11:03:13  
Date of Next Testing: 2027-06-04 11:03:13  
Product Name: **L-Tyrosine benzyl ester p-toluenesulfonate salt**  
CAS Number: 53587-11-4  
Specifications & Purity: 98%  
Lot #: 11522197  
SKU #: **T111761**  
**Analysis: 233921**  
Storage Temperature: Store at -20°C

| Parameter  | Limit Values          | Result                |
|--|-----------------------|-----------------------|
| Specific Rotation [α] <sub>20</sub> /D(c=1 in MeOH)            | -15--12 (°)           | -12.70°               |
| Melting point  | 175-180 (°C)          | 178.53000 °C          |
| Purity(HPLC)   | 98-100 (%)            | 98.19600%             |
| Purity(Neutralization titration)                               | 98-100 (%)            | 98.10%                |
| Appearance (T111761)   | Colorless Liquid      | Colorless liquid      |
| Infrared spectrum  | Conforms to Structure | Conforms to Structure |
| Solubility in EtOH , Colorless,Clear to Hazy ,50 mg/ml of EtOH | pass                  | Pass                  |



John Su  
QA & QC Manager