

GL Biochem (Shanghai) Ltd. 吉尔生化(上海)有限公司

## **CERTIFICATE OF ANALYSIS**

Product Name:	Z-Ser-OH	Lot No.:	GLS170819-11702	
CAS No.:	1145-80-8	Store at:	Cool dry place(<25°C)	
Molecular Formula:	C <sub>11</sub> H <sub>13</sub> NO <sub>5</sub>	Molecular Weight:	239.2	
Manufacturing Date:	2017-8-19	Retest Date:	2018-8-19	
Tests	Specifications			Results
Appearance	White powder			Complies
Purity(HPLC)	≥98%	≥98%		99.27%
Optical Purity	$\leq 0.5\%$ D-enantion	≤0.5% D-enantiomer		0.4611%
Melting Point	110-120°C	110-120°C		116.4-117.3°C
Specific Rotation[a] <sup>20</sup> <sub>D</sub>	+5°±1.5°(C=7 in Ac	+5°±1.5°(C=7 in AcOH)		+5.7°(C=7 in AcOH)
Clarity of solution	0.3 gram in 2ml DM	0.3 gram in 2ml DMF clear solution		Complies
Water Content(K.F.)	≤1.0%	≤1.0%		0.243%
Loss on drying	≤1.0%(50°C,2h)	≤1.0%(50°C,2h)		0.25%
IR Spectrum	In accordance with	In accordance with the structure		Complies
Mass Spectrum	In accordance with	In accordance with the structure		Complies
NMR Spectrum	In accordance with	In accordance with the structure		Complies

GL Biochem warrants material of said quality at the time of sale. It is the sole responsibility of the customers to determine the adequacy of all materials for any intended or specific purpose or use. GL's sole obligation is to replace the material up to the extent of the purchase price. This warranty applies only to products in original packaging and does not apply to a product which has been tampered with or altered in any way or which has been misused or damaged by accident or negligence. All claims must be received in writing (by fax or email) within **30 days from date when product arrive at the destination city and failure** to do so shall constitute a waiver by customers for any and all such claims.

Prepared and Checked by:

Si Jia Zhao (QA/QC)\_



Date:

## Price Inquiry/Order Email: fisherwang@glschina.com