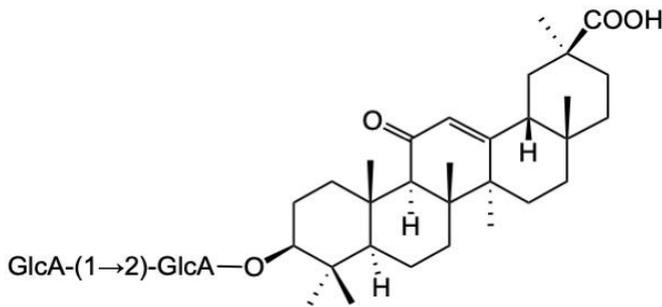


## Certificate of Analysis

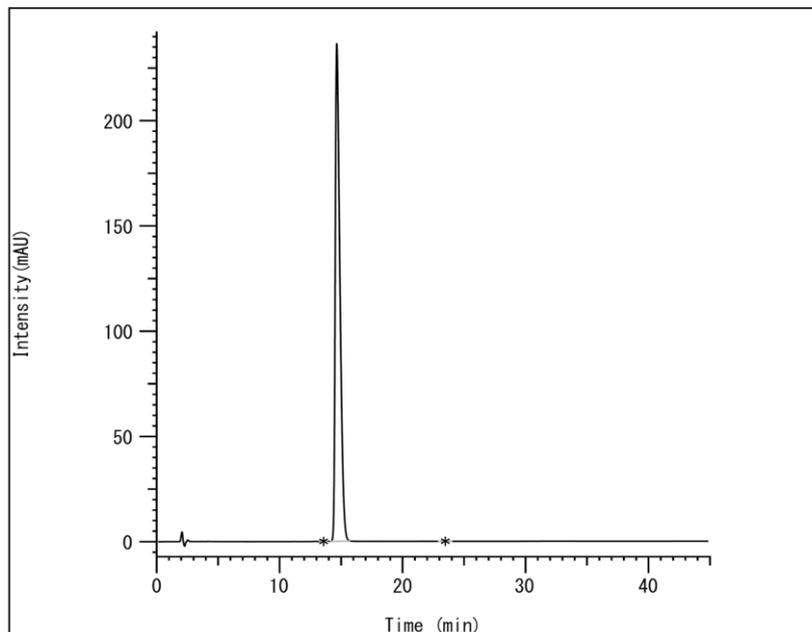
Product No.	14	Product Name	<b>Glycyrrhizic acid</b>
Lot. No.	<b>142405</b>	Unit Quantity	20mg
Analysis Date	2024-05-27	Storage Conditions	Room temperature


 $C_{42}H_{62}O_{16}$ 

MW : 822.93

CAS RN: 1405-86-3

This product conforms to the specifications in the 18th edition of the Japanese Pharmacopoeia, Reagents, Test Solutions, "Glycyrrhizic acid for thin-layer chromatography".



Retention time	Peak area	%
13.573	7948	0.13
14.653	6204872	99.81
23.430	3849	0.06
Total	6216669	100.00

Area percentage	: Not less than 99.0%
Detector	: An ultraviolet absorption photometer (254nm)
Column	: Wakosil- II 5C18 HG (4.6 × 150mm)
Column temperature	: A constant temperature of about 40°C

Purity Related substances (HPLC)	Mobile phase :	Dissolve 3.85 g of ammonium acetate in 720 mL of water, and add 5 mL of acetic acid (100) and 280mL of acetonitrile.	Passed (99.8%)
	Flow rate :	Adjust so that the retention time of glycyrrhizic acid is about 15 minutes.	
	Time span of measurement :	About 3 times as long as the retention time of glycyrrhizic acid, beginning after the solvent peak.	
Description			Passed
Identification (IR)			Passed
Absorbance $E_{1cm}^{1\%}$ (252nm) : 140~150			Passed (143)
Purity Related substances (TLC)			Passed
Water (by coulometric titration)			5.0%
Precautions			
Order quantities that can be used immediately, and after receipt of a reference standard, store it at the specified temperature and use it as soon as possible.			
Expiration Date	April 2028(unopened)		

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