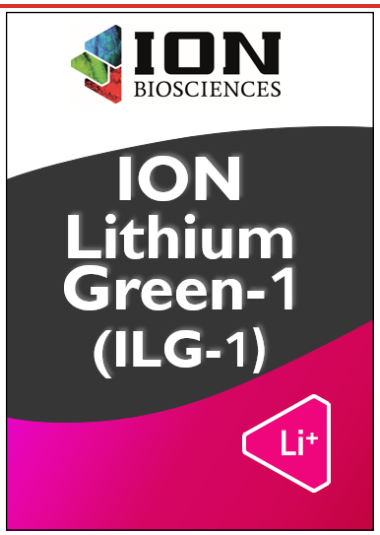
Product Specifications

ILG-1 AM

ION Lithium Green 1 AM (ILG-1 AM), is a membrane-permeable, lithium-sensitive fluorescent indicator with high affinity and selectivity that enables solution- and cell-based lithium detection and quantitation. It can also be used for sodium channel drug discovery, as lithium readily permeates open $Na_V1.X$ channels resulting in a robust and selective readout of sodium channel activity.

Available in these sizes:	
2215C	500 µg x 1
2215F	50 µg x 10
2215G	50 µg x 3



Description	
CAS number	N/A
PubChem CID	N/A
Molecular Weight	1038 g/mol
Solubility	DMSO
K_d	422 µM
Storage	-20°C
Appearance	Red to orangish-red film or pellet
Container	1.5 mL polypropylene cryogenic vial

Absorbance Spectrum	Agilent Cary 60 UV-VIS Spectrophotometer
Solvent*	High Lithium (Li^+) Buffer Solution
Absorbance max	519 ± 3 nm

Fluorescence Spectrum	Horiba Jobin Yvon FluoroMax Plus Spectrofluorometer
Solvent*	High Lithium (Li^+) Buffer Solution
Excitation max	519 ± 3 nm
Emission max	543 ± 3 nm

*Note: AM Esters are hydrolyzed to the ion sensing form

LCMS	Agilent 1220 Infinity II
Column	Phenomenex 00D-4251-E0 Luna C_{18}, 4.6 x 100 mm, 100Å, 3 µm
UV-Vis Diode Array Detector	254 nm
Purity	≥ 90%
Single Quad MS Detector	ESI positive
Molecular Ion	1037.3 ± 0.5 m/z $[M+H]^+$ 519.2 ± 0.5 m/z $[M+2H]^{2+}$

^{1}H NMR Spectrum	Bruker Avance 400
Solvent	$CDCl_3$
Spectra	Product conforms to structure

Performance of ILG-1 AM is highly dependent on the assay buffer used. ION's 10X Brilliant Lithium Assay Buffer is formulated to maximize the performance of ILG-1 AM, and equivalent performance may not be attained without the use of this assay buffer. Purchasing our Brilliant Lithium Assay Kits (Cat# 9200) is strongly recommended as this includes all the components necessary to obtain the best possible performance of ILG-1 AM.