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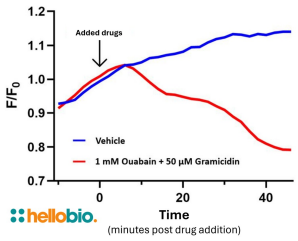
DATASHEET

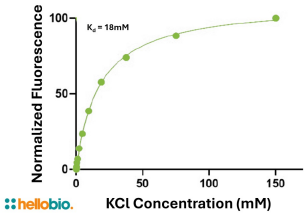
IPG-2 AM

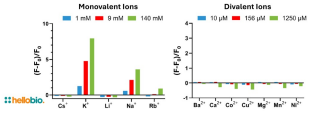
Product overview

Name	IPG-2 AM
Cat No	HB18045
Alternative names	Asante Potassium Green, Ion Potassium Green, APG, IPG, APG-2, IPG-2
Biological description	Yellow-green fluorescent potassium indicator (K_d = 18mM) which can be used with common filter sets (e.g. YFP and FITC) and multiphoton approaches (Excitation 525nm, Emission 545nm). Suitable for diverse applications such as extracellular K^+ sensing and monitoring intracellular K^+ dynamics. Synthetic fluorochrome which incorporates a K^+-binding moiety. Under conditions where K^+ is not bound, the fluorescence of the sensor is significantly quenched. When K^+ is bound, the quenching is relieved, and the fluorescence of the sensor dramatically increases. Compatible with a wide variety of detectors including fluorescent microscopes, plate readers, flow cytometers, and fluorescent indicator-doped solid-state sensors.
Applications	fluorescence imaging, live cell imaging
Purity	>90%
Description	Yellow-green fluorescent membrane permeable potassium indicator

Images







Biological Data

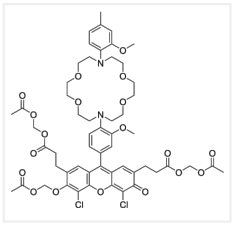
Application notes	Please follow our IPG-2 AM Protocol

Solubility & Handling

Storage instructions	-20°
Solubility overview	DMSO
Handling	This compound is light sensitive; exposure to light may affect compound performance. We therefore recommend storing the solid material and any solutions in the dark and protecting from light.
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

Chemical Data

Chemical name	6-[(acetyloxy)methoxy]-4,5-dichloro-9-[3-methoxy-4-[16-(2-methoxy-4-methylphenyl)-1,4,10,13-tetraoxa-7,16-diazacyclooctadec-7-yl]phenyl]-3-oxo-3H-xanthene-2,7-dipropanoic acid, 2,7-bis[(acetyloxy)methyl] ester

Molecular Weight	1128
Chemical structure	
Molecular Formula	$C_{55}H_{64}Cl_2N_2O_{19}$
CAS Number	1369302-24-8
PubChem identifier	163342040
SMILES	O=C(C)OCOC(CCC1=CC2=C(C3=CC(OC)=C(N4CCOCCOCCN(CCOCCOCC4)C5=C(OC)C=C(C)C=C5)C=C3)C6=CC(CCC(OCOC(C)=O)=O)=C(OCOC(C)=O)C(Cl)=C6OC2=C(C1=O)Cl)=O
InChiKey	FLNBWSAACUIXPZ-UHFFFAOYSA-N
Appearance	Solid
Excitation	525 nm
Emission	545 nm

References

Characterization of Procoagulant COAT Platelets in Patients with Glanzmann Thrombasthenia.

Aliotta A et al (2020) International journal of molecular sciences 21
PubMedID 33327658

Inflammasome Activation and IL-1β Release Triggered by Nanosecond Pulsed Electric Fields in Murine Innate Immune Cells and Skin.

Mazzarda F et al (2024) Journal of immunology (Baltimore, Md. : 1950) 212
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Modulation of neuronal activity in cortical organoids with bioelectronic delivery of ions and neurotransmitters.

Park Y et al (2024) Cell reports methods 4
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