

MINIGITA SINGLE

RADIO-TLC FOR SPECT, PET AND RADIOTHERAPY

THE TLC FOR NUCLEAR MEDICINE AND RADIO-PHARMACIES

- RADIO THIN LAYER CHROMATOGRAPHY
- BASIC SPECTRUM SCAN
- BASIC HALF LIFE TIME CONFIRMATION
- GXP FEATURES



The miniGITA Single is the new version of the well know miniGITA Star. It is a versatile state-of-the-art radio TLC system. The new motor technology reduces considerably the running noise. A complete range of detector probes allow the measurement of nearly every isotope. It is designed for optimal use in nuclear medicine, SPECT or PET laboratories.

Simply exchange the detector and the collimators to get the best performance for every application. Our detectors work gas free, ensuring long life time and low maintenance costs. The high sensitivity combined to the moving sample table allows a very fast analysis, with an average scanning time of less than 1 minute.

GxP features, spectrum scan capabilities and a basic half life time mode make the miniGITA Single a versatile system for your quality control lab. Outstanding detection capabilities, excellent signal-to-noise ratio and optimal signal resolution make the miniGITA Single the perfect workhorse for your Lab.

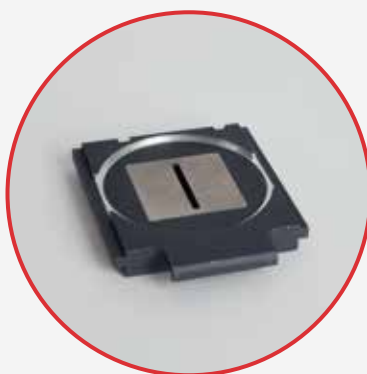
Testing the radiochemical purity with thin layer chromatography and the execution of basic gamma spectrometry are a routine for many nuclear medicine laboratories and Spect or PET facilities. Having a reliable, easy-to-use system, meeting today's standards in GMP and documentation rules is mandatory for optimal working conditions. By nature of the measurement scanning resolution, sensitivity, limit of detection, dynamic range and spectrum analysis need antipodal technical solutions.

The complete miniGITA range was designed to be as flexible and adjustable as possible, to ensure the highest performance and the best compromise depending on your actual application. To avoid human errors, system settings and configurations will be detected automatically and stored in the electronic report. The new software allows 3 different measuring modes for chromatography, spectrum analysis and half-life time determination. The miniGITA family has been developed to have the best performance for the TLC with best sensitivity, dynamic range and signal resolution for the chromatography. The half-life time and the spectrum mode enable fast and simple analysis. They are very helpful in daily routine but depending on the application, a dedicated ionization chamber or multi-channel analyzer might be necessary.

DETECTORS

We have a complete line of new generation probes using different scintillator material and different detection technologies. We propose systems with well-established PMT tubes as well as totally new digital detection technologies, ensuring the best detection for each application. The miniGITA Dual uses also the Elysia Communication protocol, with a new type of connectors. Simply change the detector/probe and the System will recognize the type and the serial number of your detector. You can even use the probes with and from our radio-flow monitor Gabi Nova. This automatic probe recognition will give you a perfect documentation of your setup and enhance your GxP tools. The new cable and communication protocol offers even more versatility because it will allow to exchange probes with all other measuring instruments like the TLC or the multichannel analyzer using the ECP (Elysia Communication Protocol). The new ECP allow also advanced control and diagnostic of your probes to ensure a better performance and a remote diagnostic.

Model	Application	Resolution	Dynamic Range	Multichannel	Collimator
miniGITA OFA probe	SPECT & PET	****	***	***	Yes
miniGITA PET probe	PET	*****	*****	---	No
miniGITA 3SA probe	MCA / Spectrum	*	***	*****	No
miniGITA Alpha probe	Alpha / Radiotherapy	****	***	**	No



PROBE TYPES

miniGITA OFA (One-fits-all) probe

The ONE-FITS-ALL is based on our well-known V-Shaped BGO technology. The crystal allows the detection of SPECT and PET isotopes. The special V-shape gives best resolution without any loss of sensitivity. A broad range of collimators allows to adapt the probe to a large energy band. The detector has also a multichannel function and is suitable for basic spectrum scans.

miniGITA PET probe

The probe has been designed for use in a PET laboratory. The scintillator and the digital detector technology allow a very high resolution and a high sensitivity to positrons. High insensitivity to gamma radiation and an extremely high dynamic range ensure very low background noise to gamma irradiation and the possibility to handle high amounts of activity. These skills make the detector the right choice for every PET facility.

miniGITA 3SA probe

The 3SA (Self Shielded Spectrum Analysis) probe for self-shielded spectrum analysis has been designed to achieve optimal spectrum analysis when combined with our TLC scanner. To eliminate background problems, the probe is self-shielded. Like all miniGITA probes, it uses ECP technology and can be used in combination with several other Elysia instruments. Built-in high quality PMT is the best choice for spectrum analysis and nucleic identification.

miniGITA Alpha probe

The miniGITA Alpha probe has been designed to offer optimal Alpha sensitivity when paired with our TLC scanner and more generally to therapeutic nuclides. The probe is based on ZnS(Tl) scintillator connected to a PMT, combining a high efficiency for Alpha and Beta radiation (up to 6 MeV) and low background for Gamma. The probe is therefore suitable to assess the radioactivity distribution on a TLC plate for a wide range of nuclides by example Lu-177, Tb-161, Ac-225, At-211, Pb-212, F-18, Ga-68, Cu-64, ...

The probe offers the possibility to remove the Beta contribution to keep only the Alpha contribution to the radiochromatogram (channel range).

As all miniGITA probes, it uses the ECP and can be used in combination with several other Elysia instruments.

COLLIMATORS

To avoid human mistakes and to obtain the best collimation, the miniGITA Single has tungsten collimators with an automatic recognition for GMP documentation.

miniGITA Single collimator: 0-60 keV

miniGITA Single collimator: 60-250 keV

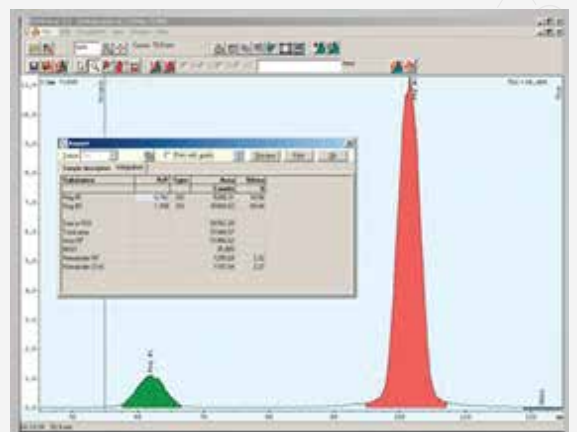
miniGITA Single collimator: 250-450 keV

miniGITA Single collimator: > 450 keV

SOFTWARE

miniGITA Single is directly controlled with Gina with a digital signal transfer according to GMP/GLP standards. Gina is also used to control the radio-HPLC, the GC or the multichannel analyzer. This allows a faster adaptation and a short learning curve if you decide to use Gina for your QC systems.

Background subtraction, a half-life-time correction and dead time correction are only some of the features included.



Technical Specifications

Probe holder	with automatic probe recognition
Collimators	5, 10, 15, 20mm tungsten collimators with automatic recognition
Scan area	25 x 200mm
Scan time	selectable
Probe/detector	miniGITA OFA, PET, 3SA and Alpha probe
Energy range	30 – 2000 keV
Count rate	0 – 1.000.000 cps
Linearity	0 – 600.000 cps $r^2 \geq 0.99$ (PET, 3SA, Alpha)
Communication	USB2.0 and 10/100 Ethernet

Physical Specifications

Dimensions	L64xH28xW22 cm
Weight	+/- 18.40 kg (without detector)



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