SEM TRAINERS & SYSTEMS
WHERE TIME MOVES AHEAD TO KEEP PACE WITH KNOWLEDGE
SEM- Scientific Educative Methods in Science, Engineering & Medicine

Mobile :	+91 88495 63724	**Email:**	sem@semtrainers.com
Mobile 1:	+91 98791 03905	**Website:**	www.semtrainers.com

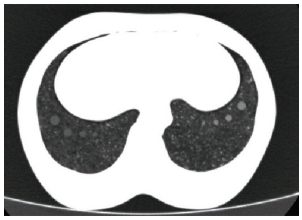
Lung Cancer Screening CT Phantom LSCT001

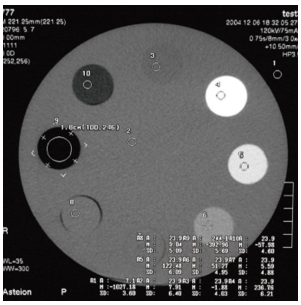
Item No.	PH-8
Weight	18kg
Brand	KYOTO KAGAKU, JAPAN

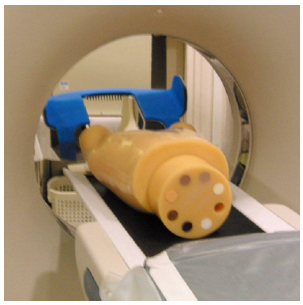
Read More

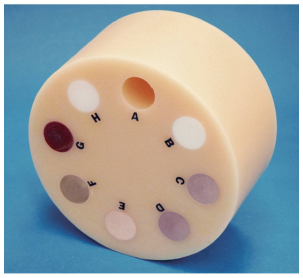
SKU:

Categories: Radiology Phantom









Product Description

Chest phantom for standardization studies in low dose lung cancer CT screening / Anthropomorphic structure provides life-like images allowing operators visual evaluation

Features	1. Simulated GGO type tumors with different sizes and HU numbers are prepared in the vicinity of three main sections of bilateral lungs 2. Dosimeter holder on the central axis of the phantom allows housing a pencil type ion chamber. 8 step cylindrical linearity phantom to control density curve as a scale can be attached to the chest phantom base.
Set includes	1 chest phantom / 1 8 step linearity phantom / 2 urethane cylinder / 1 adjustment base / 1 set of sample images / manual
Size (approx.)	chest girth 93cm□H 45cm
Packing size (approx.)	W63 x D50 x H29cm / W24.8 x D19.7 x H11.4in
Weight (approx.)	18kg
Materials	Chest wall: human tissue substitute / Bones: synthetic bones / Alveoli: styrene foam and urethane foam
Optional parts	41363-020 Carrying case for PH-1
Publication references	Muramatsu, Y., Tsuda, Y., Nakamura, Y., Kubo, M., Takayama, T., & Hanai, K. (2003). The Development and Use of a Chest Phantom for Optimizing Scanning Techniques on a Variety of Low-Dose Helical Computed Tomography Devices. Journal of Computer Assisted Tomography, 27(3), 364-374. doi:10.1097/00004728-200305000-00012
ANATOMY	Bones / Lungs / Mediastinum / Simulated tumors at three lung areas / Apical portion of the lungs / Bifurcation of the trachea / Base of lungs
Application	CT image quality evaluation / Dosimetry / Evaluation of density curve
Update	July 10, 2020

Why Choose the Lung Cancer Screening CT Phantom LSCT001 for Low-Dose CT Standardization in India?

The Lung Cancer Screening CT Phantom LSCT001 (Item No. PH-8, Brand: Kyoto Kagaku, Japan) is an anthropomorphic chest phantom built for standardization studies in low-dose lung cancer CT screening. Its life-like structure provides realistic images that allow operators to visually evaluate scan quality directly.

Simulated GGO (ground-glass opacity) type tumors of varying sizes and HU numbers are positioned near three main sections of both lungs, supporting realistic detection and characterization training. A dosimeter holder on the phantom's central axis accommodates a pencil-type ion chamber for dose measurement, and an attachable 8-step cylindrical linearity phantom allows density curve control and calibration.

Training applications:

- CT image quality evaluation
- Dosimetry
- Density curve evaluation

Anatomy represented: Bones, lungs, mediastinum, simulated tumors at three lung areas, apical portion of the lungs, bifurcation of the trachea, base of lungs.

Set includes: 1 chest phantom, 1 eight-step linearity phantom, 2 urethane cylinders, 1 adjustment base, 1 set of sample images, manual.

Specifications:

- Size approx. chest girth 93cm, height 45cm
- Packing size approx. W63×D50×H29cm (W24.8×D19.7×H11.4in)
- Weight approx. 18kg
- Materials: Chest wall — human tissue substitute; bones — synthetic bones; alveoli — styrene foam and urethane foam

Backed by published research: This phantom design methodology is documented in a peer-reviewed publication — Muramatsu, Tsuda, Nakamura, Kubo, Takayama, and Hanai (2003), "The Development and Use of a Chest Phantom for Optimizing Scanning Techniques on a Variety of Low-Dose Helical Computed Tomography Devices," Journal of Computer Assisted Tomography, 27(3), 364-374.

Why Buy from SEM Trainers? SEM Trainers & Systems is an authorized distributor of Kyoto Kagaku products in India with over 30 years of experience supplying low-dose CT screening and lung cancer imaging phantoms to 1,500+ institutions across 28 states. We provide pan-India delivery and dedicated after-sales support.

Frequently Asked Questions

Q: What does GGO mean in the context of this phantom? A: GGO stands for ground-glass opacity, a radiological finding associated with early lung cancer. This phantom includes simulated GGO-type tumors at multiple sizes and densities to support detection and characterization training.

Q: Can this phantom be used for radiation dose measurement? A: Yes — a dosimeter holder on the central axis accommodates a pencil-type ion chamber for dosimetry alongside image quality evaluation.

Q: How do I order from SEM Trainers? A: Contact us at sem@semtrainers.com or call +91-88495 63724 for pricing and availability.