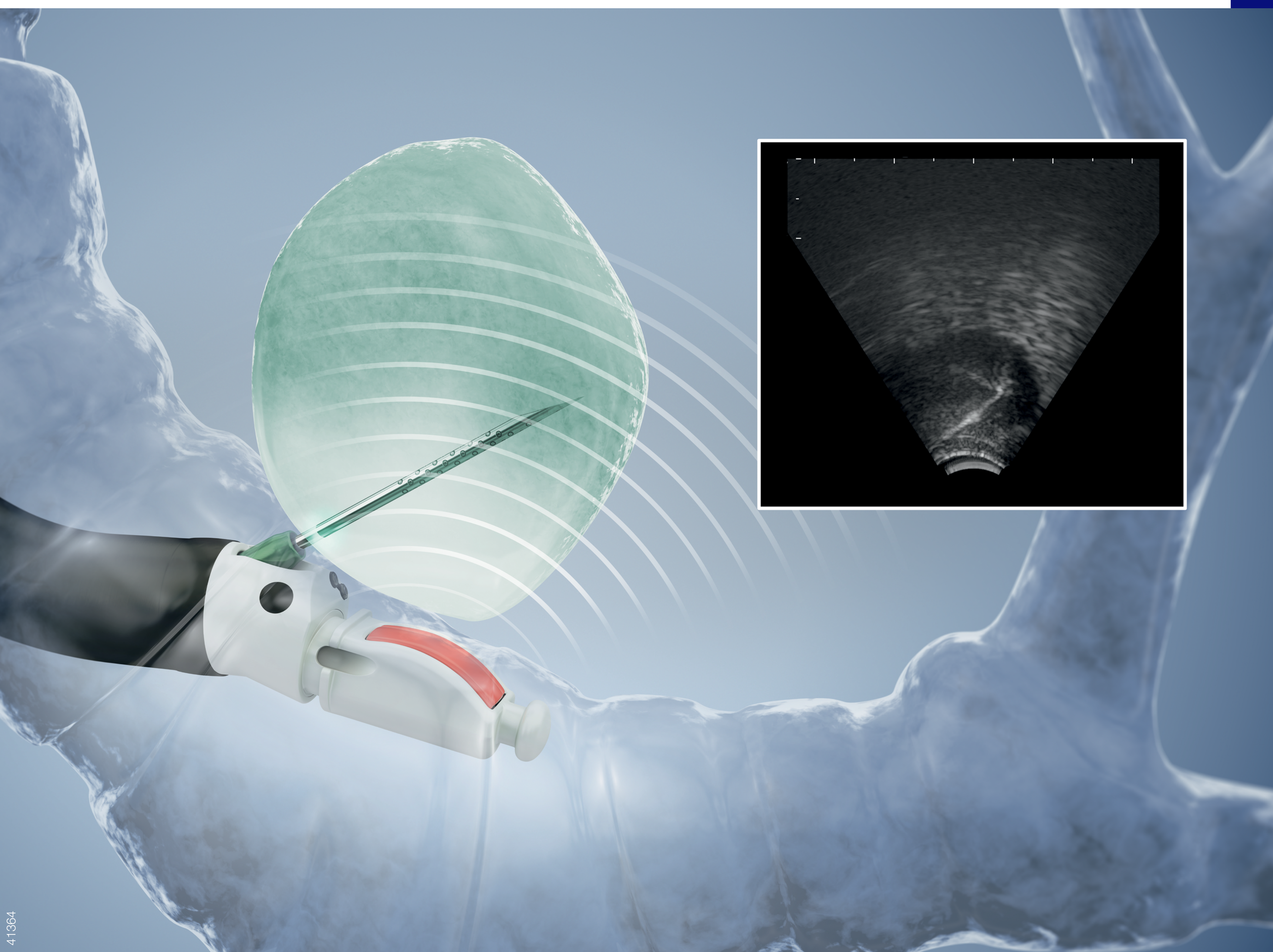
OLYMPUS

EBUS-TBNA

Looking and Sampling beyond the Bronchial Wall



EBUS-TBNA

The Gold Standard for Lung Cancer Staging

Endobronchial ultrasound transbronchial needle aspiration (EBUS-TBNA) is a reliable and commonly established technique that enables the visualization and sampling of mediastinal, central and hilar lesions, as well as lymph nodes. With the ultrasound bronchoscope BF-UC190F inserted into the trachea or the esophagus, the accessible lymph node stations can be explored and the lesions outlined while offering you the freedom to select from different EBUS needle lineups and sizes depending on your needs.

Linear Ultrasound Bronchoscope BF-UC190F

The BF-UC190F is the third generation of the reliable Olympus EBUS-TBNA endoscope. It enables enhanced access and control to allow staging and diagnosis of even difficult-to-reach lymph nodes and lesions.[1]

- **Powerful angulation:** Up to 160° angulation for enhanced access to challenging target sites.
- **Remarkable, compact distal tip:** Only 6.6 mm outer diameter and shorter rigid part of 25 mm for improved maneuverability.
- **Increased puncture performance:** 5° steeper puncture angle for smooth penetration of the bronchial wall.

This impressive EBUS-TBNA endoscope enables a wider field of application with its compact size while maintaining the large 2.2 mm working channel and compatibility to the full needle portfolio.

Universal Endoscopic Ultrasound Center EU-ME3

With more functions, better visualization, and enhanced operability, the EU-ME3 high-quality, high-resolution, compact ultrasound processor enables integration with conventional endoscopy on a single workstation. Its advanced features include Tissue Harmonic Echo (THE), Contrast Harmonic EUS (CH-EUS), and Elastography.

The EU-ME3 ultrasound processor is unique in its ability to support a wide range of Endobronchial Ultrasound Bronchoscopy (EBUS) procedures, such as EBUS-guided transbronchial needle aspiration (EBUS-TBNA) and radial EBUS for peripheral bronchoscopy procedures.

[1] Fujino K, Ujiie H, Igai H, Kinoshita T, Lee C, Hindy S, Effat A, Yasufuku K. Human Ex Vivo Lung Evaluation of the Next Generation Convex Probe Endobronchial Ultrasound Bronchoscope. CHEST Journal 2017;152(4):A884.

EBUS-TBNA Needle Portfolio

Expand Your Possibilities in EBUS-TBNA

EBUS-TBNA for Reliable Staging and High Yield

EBUS-TBNA has proven to be of great value not only for lymphnode staging (N-staging) but also for the strategic use of cytology and histology samples for molecular analysis. The acquired specimen can be used to obtain a reliable diagnosis as well as for cell-block preparation, immunochemistry and molecular studies.

EBUS-TBNA Needles

Olympus is incomparable in offering 19G EBUS-TBNA needle in addition to the 21G, 22G and 25G needles. But now it also provides the second generation of EBUS needles — the ViziShot 2. While the entire portfolio offers the already established safety mechanisms and excellent ultrasound visibility, Olympus now provides a needle for every situation — expanding your possibilities in EBUS-TBNA.

ViziShot 2 FLEX

- Largest EBUS needle with a 19G diameter with FNA (fine needle aspiration) and FNB (fine needle biopsy) indication.
- Supports histological sampling for suspected sarcoidosis and lymphoma but also helps to provide more tissue for advanced molecular analyses.
- An ally for special indications but also whenever superior flexibility is needed.

ViziShot 2

- The new, improved 21G, 22G and 25G needles.
- Smooth needle penetration thanks to sharper needle tip.
- Better needle control with the new ergonomic handle design.

ViziShot

- The reliable and long-established EBUS-TBNA needle.

Rapid On-Site Evaluation (ROSE)

Supporting Reliable Staging and High Yield

Ensure Sample Adequacy for Molecular Testing

During the ROSE procedure, clinicians evaluate smears obtained in the endoscopy suite directly on-site to ensure that the aspirated material is adequate. It helps clinicians to:

- Select the most suitable sampling sites.
- May improve diagnostic yield.
- Reduce the number of inadequate specimens.

The synergy between the endoscopist and the pathologist is crucial during ROSE to obtain the best specimen for pathological, immunohistochemical and molecular analyses.[2]
A meta-expert panel review showed that ROSE is necessary to carry out all molecular analyses and prevent invasive surgical procedures after EBUS-TBNA.[3]

Microscopes for ROSE

Olympus CX-series microscopes are highly suitable for ROSE procedures during endoscopy, providing:

- The same optical quality as dedicated pathology microscopes.
- Ergonomic controls for improved ease of use.
- A compact, robust and long-lasting design.

For easy sharing of images during a procedure, an Olympus EP50 stand-alone camera can be added, providing a live image of the sample directly on a monitor or wirelessly to a tablet, without an additional computer or additional software.

[2] J. Guarize et al., Endobronchial Ultrasound Transbronchial Needle Aspiration in Thoracic Diseases: Much More than Mediastinal Staging. Volume 2018, Article ID 4269798, 7 pages https://doi.org/10.1155/2018/4269798
[3] D. Jain, T. C. Allen, D. L. Aisner et al., Rapid on-site evaluation of endobronchial ultrasound-guided transbronchial needle aspirations for the diagnosis of lung cancer: a perspective from members of the Pulmonary Pathology Society, Archives of Pathology & Laboratory Medicine, vol. 142, no. 2, pp. 253-262

Microscopes

	CX23		CX43
Field of View at Oculars	20 mm		22 mm
Objectives	Plan-achromat objectives included (4×/10×/20×/40×)		Compatible with all Olympus objective series from 2× to 100×
Dimensions (W × D × H)	198 × 398 × 386 mm		211 × 376 × 393 mm
Weight	Approximately 5.9 kg		Approximately 7.3 kg

For more information about Olympus EBUS-TBNA offering, please visit:

www.olympus.eu/pulmonology

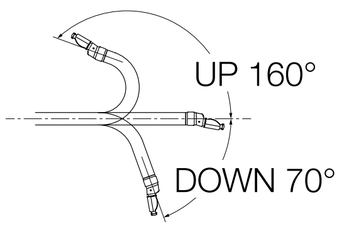
www.olympus.eu/et-catalog

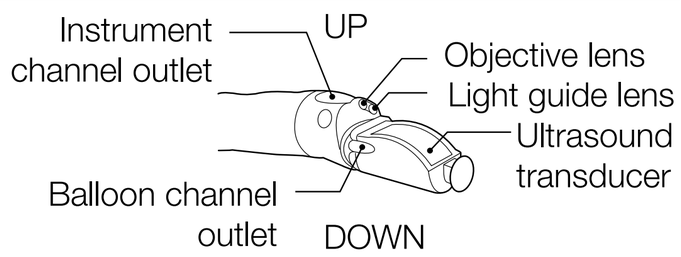
www.olympus-lifescience.com/en/microscopes/upright/cx43-33/

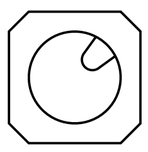
EBUS-TBNA

Specifications at a Glance

BF-UC190F





Optical System	Field of View	80°
	Direction of View	20° forward oblique
	Depth of Field	2-50 mm
Insertion Tube	Distal End Outer Diameter	6.6 mm
	Insertion Tube Outer Diameter	6.3 mm
	Working Length	600 mm
Instrument Channel	Channel Inner Diameter	2.2 mm
	Direction from Which EndoTherapy Accessories Enter and Exit the Endoscopic Image	
Bending Section	Angulation Range	Up 160°, down 70°
Total Length		890 mm

EBUS-TBNA Needles

ViziShot and ViziShot 2

Article Name	Min. Working Channel Ø	Needle Length	Needle Gauge
NA-201SX-4021	2.0 mm	20-40 mm	21G
NA-201SX-4022	2.0 mm	20-40 mm	22G
NA-U401SX-4021	2.0 mm	20-40 mm	21G
NA-U401SX-4022	2.0 mm	20-40 mm	22G
NA-U403SX-4019	2.2 mm	20-40 mm	19G
NA-U401SX-4025N	2.0 mm	20–40 mm	25G

Compatible Ultrasound Systems

The features listed here refer to the usage of the ultrasound processors in conjunction with the BF-UC190F endoscope.

Hitachi Arietta 850

Olympus EU-ME3

	Hitachi Arietta 850
Ultrasound Cable	MAJ-2056 with junction box JB-294
Display Mode	B mode, M mode, eFLOW mode, THI-HdT mode, elastography*
Scanning Method	Electronic curved linear array
Scanning Direction	Parallel to the insertion direction
Frequency	5/7.5/10/12 MHz
Scanning Range	65°
Other Compatibilities	Compatible with extracorporeal ultrasound probes
Contact Method	Balloon method**, direct-contact method

	Olympus EU-ME3
Ultrasound Cable	MAJ-2056
Display Mode	B mode, H-FLOW mode, THE mode, elastography*
Scanning Method	Electronic curved linear array
Scanning Direction	Parallel to the insertion direction
Frequency	5/6/7.5/10/12 MHz
Scanning Range	65°
Other Compatibilities	Compatible with EBUS radial miniature probes
Contact Method	Balloon method**, direct-contact method

* Further modes available, please check instruction manual for details.
** Balloon MAJ-1351 can be used with the BF-UC190F.

OLYMPUS

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