

TTF-1; Clone 8G7G3/1

Catalog Number	Format	Volume
A00144-0002	(Ready-To-Use)	2 ml
A00144-0007	(Ready-To-Use)	7 ml
A00144-0025	(Ready-To-Use)	25 ml
A00144-C	(Concentrate)	1 ml

Intended Use

For In-Vitro Diagnostic Use. This antibody is intended for the qualitative visualization of the anatomical elements listed in the Specificity section. It is intended to be used within an Immunohistochemistry (IHC) procedure on formalin-fixed paraffin-embedded (FFPE) human tissue followed by visualization by light microscopy.

Description

Titer/Working Dilution: Ready-to-Use: No further dilution required.

Concentrate: Suggested dilution is 1:100-200

Species: Mouse
Immunogen: Mouse Monoclonal
Clone: 8G7G3/1
Isotype: IgG1
Format:

Ready-To-Use antibody has been pre-titered and quality controlled to work on formalin-fixed paraffin-embedded as well as acetone fixed cryostat tissue sections. No further titration is required.

Concentrate antibody is provided in a phosphate buffered saline containing 1% BSA.

Specificity: This antibody reacts with TTF-1 protein found in adenocarcinomas of the lung and tumors originating in the thyroid. TTF-1 positive cells are found in Type II pneumocytes and Clara cells in the lung. In the thyroid, follicular and parafollicular cells are positive. In lung cancers, Adenocarcinomas are usually positive, while Squamous Cell Carcinomas and Large Cell Carcinomas are rarely positive. In addition, Small-Cell Carcinomas (of any primary site) are usually positive.

Background: Thyroid transcription factor (TTF-1) is a protein that regulates transcription of genes specific to thyroid, lung and diencephalon. It is also known as thyroid-specific enhancer binding protein and NKX-2. The protein plays a crucial role in normal lung function and morphogenesis. TTF-1 is expressed consistently throughout the life stages and uniformly in the terminal respiratory unit, which is comprised of peripheral airway cells and small-sized bronchioles.

The TTF-1 gene encodes a transcription termination factor that is localized to the nucleolus and plays a critical role in ribosomal gene transcription. The encoded protein mediates the termination of RNA polymerase I transcription by binding to Sal box terminator elements downstream of pre-rRNA coding regions. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene.

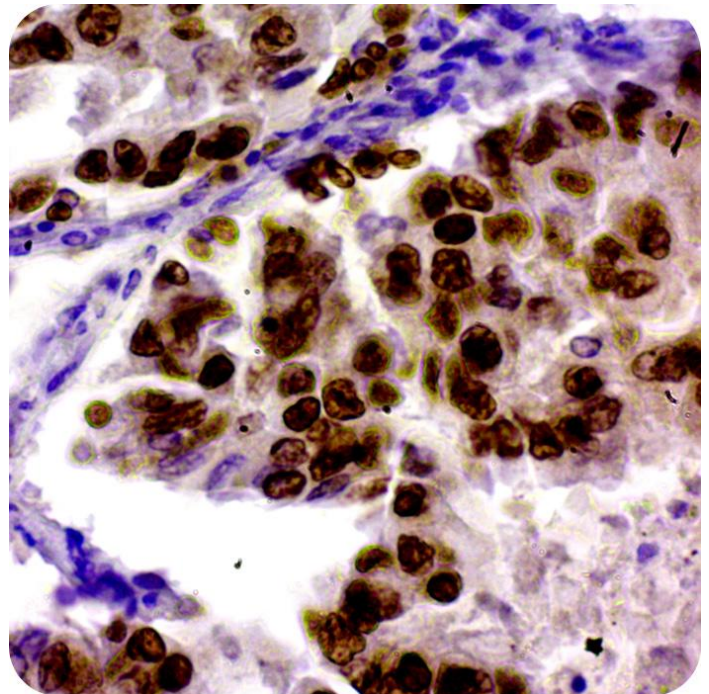
TTF-1 is useful in differentiating primary Adenocarcinoma for the lung from Metastatic Carcinomas of the breast and Malignant Mesothelioma. The antibody can also be useful to differentiate Small-Cell Lung Carcinoma from lymphoid infiltrates.

Species Reactivity: Human. Others not known.
Positive Control: Adenocarcinoma of the Lung or Thyroid.
Cellular Localization: Nuclear.
Microbiological State: Nonsterile

Materials and Reagents Required but not Provided

- Control tissue and reagents
- Xylene, graded alcohols, and deionized/distilled water
- Antibody Diluent.
- IHC detection system. Suggested: ScyTek Cat# ABZ125 "CRF Anti-Polyvalent HRP Polymer" and ScyTek Cat# ACV500 "DAB Chromogen/Substrate Kit (High Contrast)".
- Wash buffer for rinses (ScyTek Cat# TBT500)
- HIER Retrieval Solution
- Hematoxylin counterstain and bluing reagent (ScyTek Cat# HMM500 and BRT500)
- Mounting medium and coverslips

Note: ScyTek Laboratories has a wide range of IHC reagents and ancillaries that can be found at scytek.com.




Human Lung Adenocarcinoma

Procedure

- Tissue Section Pretreatment (Highly Recommended):** Staining of formalin fixed paraffin embedded tissue sections is significantly enhanced by pretreatment with Tis-EDTA HIER Solution (10x) pH 9.0 (ScyTek catalog# TES500) or Citrate Plus (10x) HIER Solution (ScyTek catalog# CPL500)

Storage: 2° C  8° C

 ScyTek Laboratories, Inc.
 205 South 600 West
 Logan, UT 84321
 U.S.A.

CE

EC REP

Emergo Europe
 Westervoortsedijk 60
 6827 AT Arnhem, The Netherlands

P.O. Box 3286 - Logan, Utah 84323, U.S.A. - Tel. (800) 729-8350 – Tel. (435) 755-9848 - Fax (435) 755-0015 - www.ScyTek.com

2. Primary Antibody Incubation Time: We suggest an incubation period of 30 minutes at room temperature. However, depending upon the fixation conditions and the staining system employed, optimal incubation should be determined by the user.

3. Visualization: For maximum staining intensity we recommend the “CRF Anti-Polyvalent HRP Polymer” (ScyTek catalog# ABZ125, see IFU for instructions) combined with the “DAB Chromogen/Substrate Bulk Pack (High Contrast)” (ScyTek catalog# ACV500, see IFU for instructions).

Storage and Stability

Do not Freeze. Store at 2-8°C. Return to 2-8° immediately after use. Do not use after expiration date printed on label. Verify visually that antibody has not been contaminated before use. Do not use if reagent becomes cloudy or precipitates.

Limitations

Immunohistochemistry is a complex technique involving both histological and immunological detection methods. Tissue processing and handling prior to immunostaining can cause inconsistent results. Variations in fixation and embedding or the inherent nature of the tissue specimen may cause variations in results. Endogenous peroxidase activity or pseudoperoxidase activity in erythrocytes and endogenous biotin may cause non-specific staining depending on detection system used. This data sheet's recommendations and procedures were validated using ScyTek IHC reagents and may not be suitable for other detection systems.

Precautions

1. Contains Sodium Azide as a preservative (0.09% w/v), do not ingest. Sodium Azide may react with lead and copper plumbing to form highly explosive metal azides. Upon disposal, flush with large volumes of water to prevent azide build-up in plumbing. This product contains no hazardous material at a reportable concentration according to U.S. 29 CFR 1910.1200, OSHA Hazardous Communication Standard and EC Directive 91/155/EC.
2. Do not pipette by mouth.
3. Avoid contact of reagents and specimens with skin and mucous membranes.
4. Avoid microbial contamination of reagents or increased nonspecific staining may occur.
5. The user must validate any procedures and recommendations that differ from this data sheet.
6. The SDS may be found at scytek.com

References

1. Turner BM, Cagle PT, Sainz IM, Fukuoka J, et al. Arch Pathol Lab Med. 2012; 136:163-171.
2. Ye J, Findeis-Hosey JJ, Yang Q, McMahon LA, et al. Appl Immunohistochem Mol Morphol. 2011; 19(4):313-317.
3. Perner S, Wagner PL, Soltermann A, LaFargue C, et al. J Pathol. 2009; 217:65-72.
4. Comperat E, Zhang F, Perrini C, et al. Mod Pathol. 2005; 18:1371-1376.
5. Stenhouse G, Fyfe N, King G, Chapman A, Kerr KM. J Clin Pathol. 2004;57:383-387.
6. Yatabe Y, Mitsudomi T, Takahashi T. Am J Surg Pathol. 2002;26(6):767-773.

Warranty

No products or “Instructions For Use (IFU)” are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our IFU or website. Our warranty is limited to the actual price paid for the product. ScyTek Laboratories, Inc. is not liable for any property damage, personal injury, time or effort or economic loss caused by our products.

Storage: 2° C



8° C



ScyTek Laboratories, Inc.
205 South 600 West
Logan, UT 84321
U.S.A.



EC REP

Emergo Europe
Westervoortsedijk 60
6827 AT Arnhem, The Netherlands