



# PROTEIN BIOTECHNOLOGIES

## HUMAN LUNG TISSUE LYSATE

<b>Catalog Number:</b>	<b>Extraction 1, soluble protein fraction</b>		
	<b>T1-039-T-1</b>	<b>Human lung tumor tissue lysate</b>	100 µg
	<b>T1-039-N-1</b>	<b>Human lung normal tissue lysate (matched)</b>	100 µg

	<b>Extraction 2, insoluble protein fraction</b>		
	<b>T1-039-T-2</b>	<b>Human lung tumor tissue lysate</b>	100 µg
	<b>T1-039-N-2</b>	<b>Human lung normal tissue lysate (matched)</b>	100 µg

**Diagnosis:** Squamous Cell Carcinoma, grade 2. Stage I. T<sub>1</sub>N<sub>0</sub>M<sub>0</sub>.

**Sex / Age:** Male, age 70.

**Concentration:** 1 mg/ml, 100 µg/vial.

*The vial is provided with a 10% overflow. Maximum recovery can be obtained by centrifuging the vial briefly to collect any solution on the cap and tube sides.*

**Storage:** Aliquot single use volumes to avoid repeated freeze/thaw cycles. From time of receipt, this product is stable for 3 months at -20°C, or 12 months at -70°C.

**Lysate Preparation:** Tissue specimens are homogenized in modified RIPA buffer to obtain the soluble proteins, and centrifuged to clarify. The pellet was further extracted with a second buffer to obtain the less soluble protein fraction. The lysate solution may appear turbid at cold temperatures due to insolubility of buffer components. The solution should clear upon warming to room temperature.

<b>Extraction 1:</b>	PBS, pH 7.4	1 µg/ml Aprotinin	1 mM NaF
<b>Modified RIPA Buffer:</b>	1 mM EDTA	1 µg/ml Pepstatin-A	0.1% SDS
	0.25% Na deoxycholate	1 µg/ml Leupeptin	1 mM PMSF
	1 mM Na <sub>3</sub> VO <sub>4</sub>		

**Extraction 2:** PBS, pH 7.4, 5.0 M Urea, 2.0 M Thiourea, 50mM DTT, 0.1% SDS

**Application:** These lysates have not been subjected to denaturing or reducing conditions. This allows the tissue or cell lysate to be used in a variety of applications; to study protein-protein interaction, ligand binding, ELISA, immunoprecipitation, 1D and 2D gel electrophoresis, and Western blotting for the detection of specific protein targets. For use in 1D and 2D gel electrophoresis, the addition of a denaturing gel loading buffer with reducing agents may be required.

Buffer requirements for performing protein-protein interaction and ligand binding studies can vary significantly from RIPA buffer and may require modifications. In most cases, tissue lysates in RIPA buffer can be used, directly in standard ELISA and immunoprecipitation assays.

This material has tested negative for HbsAg, HIV 1/2, and HCV. Use *UNIVERSAL PRECAUTIONS* when handling. Human tissue derivatives must be treated as a potentially infectious agent and disposed of appropriately.

**Source:** Integrated Laboratory Services-Biotech (ILSbio), Chestertown, MD 21620 [www.ilsbio.com](http://www.ilsbio.com)  
ILS-7211.

**For Research Use Only**



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**PATHOLOGY REPORT**

**Catalog No.** T1-039

**Tissue:** Lung

**Location:** Right upper lobe.

**Diagnosis:** Squamous cell carcinoma

**Stage:** I T<sub>1</sub>N<sub>0</sub>M<sub>0</sub>

**Grade:** II

**Sex:** Male

**Age:** 70 years

**Gross findings:** Tumor size 8 cm diameter, well demarcated.  
Cut section soft, hemorrhagic and necrotic.  
Ipsilateral hilar lymph nodes:0

**Microscopic findings:** Tumor shows proliferation of malignant epithelial cell clusters. Epithelial cells form clusters with irregular, basophilic, large nuclei and predominant nucleoli. Nuclear chromatin is coarse and irregularly distributed. Mitotic figures are evident. The surrounding stroma is hemorrhagic and infiltrated by large numbers of lymphocytes, plasma cells, eosinophils and neutrophils. Tumor necrosis and blood vessel invasion are revealed.