



PROTEIN BIOTECHNOLOGIES

HUMAN LUNG TISSUE LYSATE

Catalog Number:	Extraction 1, soluble protein fraction		
	T1-037-T-1	Human lung tumor tissue lysate	100 µg
	T1-037-N-1	Human lung normal tissue lysate (matched)	100 µg

	Extraction 2, insoluble protein fraction		
	T1-037-T-2	Human lung tumor tissue lysate	100 µg
	T1-037-N-2	Human lung normal tissue lysate (matched)	100 µg

Diagnosis: Squamous Cell Carcinoma, grade 2. Stage II. T₂N₀M₀.

Sex / Age: Male, age 40.

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.

Extraction 1:	PBS, pH 7.4	1 µg/ml Aprotinin	1 mM NaF
Modified RIPA Buffer:	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 ₃ VO ₄		

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
ILS-7254.

For Research Use Only



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PATHOLOGY REPORT

Catalog No. T1-037

Tissue: Lung

Location: Right upper lobe.

Diagnosis: Squamous cell carcinoma

Stage: II T₂N₀M₀

Grade: II

Sex: Male

Age: 40 years

Gross findings: Tumor size 12 x 14 x 14 cm, ill demarcated.
Cut section soft, hemorrhagic.

Microscopic findings: Tumor shows proliferation of malignant epithelial cell clusters. Epithelial cells are characterized by polygonal and spinal formation with cuboidal, columnar nuclei and predominant nucleoli. Nuclear chromatin is coarse and irregularly distributed. Mitotic figures are abundant. 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.