PROTEIN
BIOTECHNOLOGIES

HUMAN THYROID TISSUE LYSATE

Catalog Number:

Extraction 1, soluble protein fraction

T16-007-T-1	**Human thyroid *tumor* tissue lysate**	100 μg
T16-007-N-1	**Human thyroid *normal* tissue lysate (matched)**	100 μg

Extraction 2, insoluble protein fraction

T16-007-T-2	**Human thyroid *tumor* tissue lysate**	100 μg
T16-007-N-2	**Human thyroid *normal* tissue lysate (matched)**	100 μg

Diagnosis: Papillary carcinoma. Stage III. $T_3N_1M_0$

Sex / Age: Female, age 30.

Concentration: 1 mg/ml, 100 μg/vial.

The vial is provided with a 10% overfill. 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_3VO_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-00252

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PATHOLOGY REPORT

Catalog No.	T16-007
Tissue:	Thyroid
Location:	Left lobe.
Diagnosis:	Papillary carcinoma.
Stage:	III
Grade:	NA
Sex:	Female
Age:	30 years
Gross findings:	Tumor size 4 x 3 x 2 cm. Cut section gray-white and hemorrhagic. Ipsilateral cervical lymph nodes, 4 of 8 positive.
Microscopic findings:	Malignant glandular cells with coarse chromatine and bizarre nuclei, arranged as papillary structure and extended to the thyroid capsule. No tumor necrosis or blood vessel invasion. Rare lymphocytic response.