PROTEIN
BIOTECHNOLOGIES

HUMAN LIVER TISSUE LYSATE

Catalog Number:

Extraction 1, soluble protein fraction

T9-005-T-1	**Human liver *tumor* tissue lysate**	100 µg
T9-005-N-1	**Human liver *normal* tissue lysate (matched)**	100 µg

Extraction 2, insoluble protein fraction

T9-005-T-2	**Human liver *tumor* tissue lysate**	100 µg
T9-005-N-2	**Human liver *normal* tissue lysate (matched)**	100 µg

Diagnosis: Hepatocellular carcinoma, Grade 2, stage II, $T_2N_0M_x$

Sex / Age: Female, age 23.

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-10128

For Research Use Only

THIS PRODUCT IS FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES.

1672 Main St. Ste. E #264 • Ramona, CA 92065 • Tel: 760.789.8928 • Fax: 760.789.8929 • Toll Free: 800.475.1955 • www.proteinbiotechnologies.com

PROTEIN
BIOTECHNOLOGIES

PATHOLOGY REPORT

Catalog No. T09-005

Tissue: Liver

Location: Liver

Diagnosis: Hepatocellular carcinoma, poorly differentiated.

Stage: II, $T_2N_0M_x$

Grade: 2

Sex: Female

Age: 23 years

Appearance:

Macroscopic		***Characteristics***	***+/-***
Organ:	Liver	Encapsulated:	-
Size:	10 cm.	Invaded:	+
Color:	Brown	Hemorrhagic:	+
Consistency:	Friable	Cystic degeneration:	-
Cut surface:	Homogenous	Calcification:	-

Histologic pattern:

Cell distribution:	***+/-***	***Structure / Pattern:***	***+/-***
Diffuse:	-	Streaming:	-
Mosaic:	+	Storiform:	-
Necrosis:	+	Fibrosis:	-
Lymphocytic infiltration:	+	Pallisading:	-
Vascular invasion:	-	Cystic degeneration:	-
Clusterized:	+	Bleeding:	-
Alveolar formation:	-	Myxoid change:	-
Indian file:	-	Psammoma body:	-

Cellular differentiation:

Squamous:	***+/-***	***Adenomatous:***	***+/-***	***Sarcomatous:***	***+/-***
Squamoid:	-	Glandular cell:	+	Round cell:	-
Spindle:	-	Cell stratification:	-	Spindle cell:	-
Keratin:	-	Secretion:	-	Leiomyoblast:	-
Desmosome:	-	Intracellular vacuole:	+	Lipoblast:	-
Pearl:	-	Glandular formation:	-	Rhadomyoblast:	-

Nuclear atypia:

Nuclear Appearance:	**0**	**I**	**II**	**III**
Anisonucleosis:				X
Hyperchomatism:			X	
Nucleolar prominent:			X	
Multinucleated giant cell:			X	
Mitotic activity:			X	
Nuclear grade:			X	

THIS PRODUCT IS FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES.

1672 Main St. Ste. E #264 • Ramona, CA 92065 • Tel: 760.789.8928 • Fax: 760.789.8929 • Toll Free: 800.475.1955 • www.proteinbiotechnologies.com