



RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

RABBIT ANTI HUMAN CD98 LIGHT CHAIN (N-TERMINAL)

With HRP-Conjugated Second Antibody

Catalog No.
DS-PB-00447

Species
Human

Isotype
Rabbit IgG

Preparation

Antisera to CD98 light chain were raised by repeated immunizations of rabbit with highly purified antigen. Purified IgG prepared by affinity chromatography.

Immunogen

Synthetic peptide: N-terminal region of CD98 light chain

Specificity

DS-PB-00447 detects an epitope within the N-terminal (NT) region of the CD98 light chain (CD98LC), also known as the 4F2 light chain, or LAT-1. CD98LC is a 40kD multi-pass membrane protein which forms a heterodimer with the CD98 heavy chain to allow transport of large branched chain, neutral amino acids into the cell. This transport system leads to the uptake of seven amino acids, including isoleucine, phenylalanine, and methionine.

The expression levels of CD98LC are upregulated in a wide spectrum of primary human cancers. Changes in amino acid transporter expression are thought to be an early change in oncogenesis, as they impart growth and survival advantages.

Histology Positive Control Tissue: Placenta

Western Blotting: DS-PB-00447 detects a band of approximately 50-55kDa in human liver cell lysates.

Formulation

Product Type Polyclonal Antibody

Product Form Purified IgG – liquid

Buffer Solution Phosphate buffered saline pH 7.7

Preservative Stabilizers 0.09% Sodium Azide (NaN₃)

Approx. Protein Concentrations IgG concentration 1.0mg/ml

The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.



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Applications

Table Summary of antibody applications and working conditions

Options Functions	YES	NO	Not determined	Recommended Work dilution or concentration
ELISA			.	
Western Blotting	.			1/100 – 1/1000
Immunohistology - frozen			.	
Immunohistology - paraffin	.			15-25ug/ml
Immunohistology - resin			.	
Neutralization			.	

Note: Other applications are not tested yet. Optimal dilutions should be determined by each laboratory for each application.

Secondary Antibody Applications

Options Functions	YES	NO	Not determined	Recommended Work dilution or concentration
Immunoassay (ELISA, Western blot)	.			1:5000-1:10000

Storage

Store at +4°C or at -20°C if preferred.

Storage in frost-free freezers is not recommended.

This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life: 18 months from date of dispatch

Recommended Reading

1. Padbury, J.F. *et al.* (2004) Transcriptional regulation of the LAT-1/CD98 light chain. *Biochem. Biophys. Res. Commun.* 318: 529-534.
2. Fuchs, B.C. and Bode, B.P. (2005) Amino acid transporters ASCT2 and LAT1 in cancer: partners in crime? *Semin. Cancer Biol.* 15: 254-266.

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