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Datasheet for 200-301-098

Biotin Monoclonal Antibody

Overview

Description:	Anti-Biotin (MOUSE) Monoclonal Antibody - 200-301-098
Item No.:	200-301-098
Size:	100 µg
Applications:	ELISA, IF, WB, LFA, Other
Reactivity:	Biotin
Host Species:	Mouse

Product Details

Background:	Biotin Antibody detects Biotin. Biotin is a water-soluble B-complex vitamin (vitamin B7). It is composed of a ureido (tetrahydroimidizalone) ring fused with a tetrahydrothiophene ring. A valeric acid substituent is attached to one of the carbon atoms of the tetrahydrothiophene ring. Biotin is a coenzyme for carboxylase enzymes, involved in the synthesis of fatty acids, isoleucine, and valine, and in gluconeogenesis. Biotin is necessary for cell growth, the production of fatty acids, and the metabolism of fats and amino acids. Anti-Biotin Antibody is ideal for investigators involved in Cell Signaling and Cell Biology research.
Synonyms:	mouse anti-Biotin Monoclonal Antibody, Biotin Antibody, Vitamin H, Coenzyme R
Host Species:	Mouse
Clonality:	Monoclonal
Clone ID:	4C7.D5
Format:	IgG2a

Target Details

Reactivity:	Biotin
Immunogen Type:	Other
Immunogen:	Anti-Biotin Antibody was produced by repeated immunizations with Biotin conjugated to Keyhole Limpet Hemocyanin (b-KLH).

Purity/Specificity:	Anti-Biotin Antibody was prepared from mouse ascites by Protein A chromatography sepharose beads. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-mouse serum, Biotin conjugated IgG and Biotin conjugated Bovine Serum Albumin.
Relevant Links:	• 200-301-098 SDS

Application Details

Tested Applications:	ELISA, IF, WB
Suggested Applications:	LFA, Other (Based on references)
Application Note:	Anti-Biotin antibody has been tested in ELISA, western blot and immunofluorescence and is suitable for lateral flow, immunoprecipitation, immunodiffusion, conjugation and most immunological methods requiring lot-to-lot consistency, high titer and specificity.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:20,000
FC:	1-2 µg/mL
IF:	2 ug/mL
IHC:	1:1,000 - 1:5,000
WB:	1:2,000 - 1:10,000

Formulation

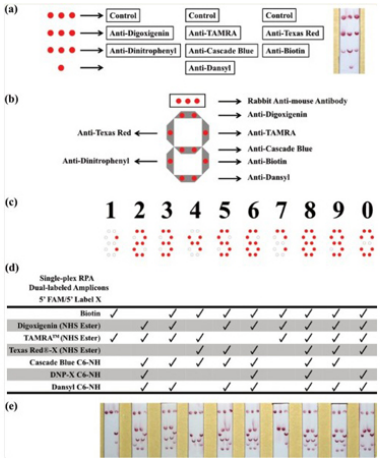
Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/ml by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

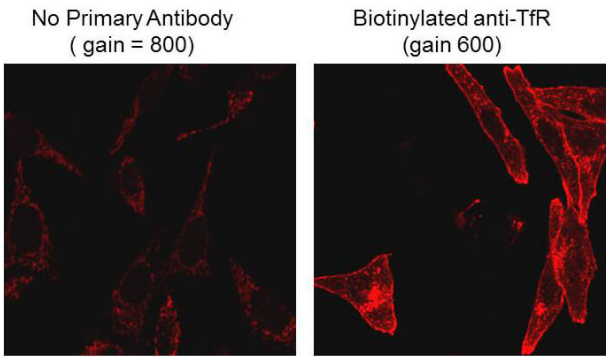
Shipping Condition:	Dry Ice
Storage Condition:	Store Anti-Biotin at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Expiration: Expiration date is one (1) year from date of receipt.

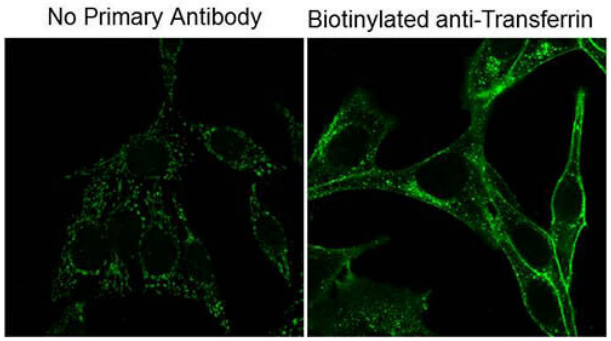
Images



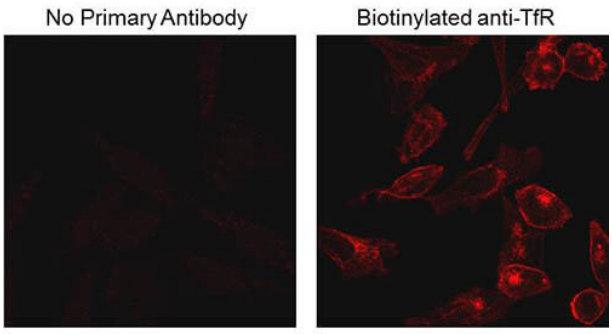
Lateral Flow
Single-plex RPA in combination with multiplexed LFD detection. (a) Positioning of detection antibodies deposited upon multiplex LFDs (left); all seven dual-labeled RPA amplicons (3.0 µL of 5′ FAM/3′ biotin and 5′ FAM/3′ Dansyl-X C6-NH and 2.0 µL of 5′ FAM/3′ X, X = digoxigenin (NHS ester), TAMRA (NHS ester), Texas Red-X (NHS ester), Cascade Blue C6-NH, or DNP-X C6-NH) mixture was detected on the multiplexed LFD (right). (b) Positioning of the detection antibodies to form the 7 segments of the display. (c) Required number displays. (d) Addition of single-plex RPA dual-labeled amplicon signature mixtures (3.0 µL of 5′ FAM/5′ biotin and 5′ FAM/5′ Dansyl-X C6-NH and 2.0 µL of 5′ FAM/5′ X X = digoxigenin (NHS ester), TAMRA (NHS ester), Texas Red-X (NHS ester), Cascade Blue C6-NH, or DNP-X C6-NH) for defined number displays. (e) Resulting successful appearance of numbers (0–9). The assay was performed three times with similar results; a photograph of one test is shown.
Fig 3. PMID: 31460243



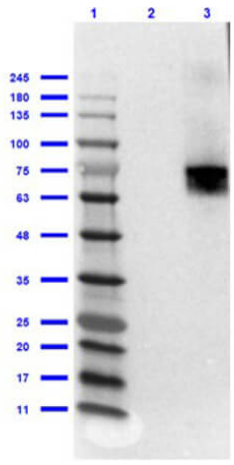
Immunofluorescence Microscopy
Immunofluorescence Microscopy of Mouse Anti-Biotin antibody. Tissue: HeLa cells. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: Biotinylated anti-transferrin receptor antibody. Secondary antibody: CF™488A anti-biotin secondary antibody at 2ug/mL for 45 min at RT. Localization/Staining: plasma membrane and endosome.



Immunofluorescence Microscopy
Immunofluorescence Microscopy of Mouse Anti-Biotin antibody. Tissue: HeLa cells. Fixation: 0.5% PFA. Antigen retrieval: not required. Gain: 800. Primary antibody: Biotinylated anti-transferrin receptor antibody. Secondary antibody: CF™488A anti-biotin secondary antibody at 2ug/mL for 45 min at RT. Localization/Staining: plasma membrane and endosome.



Immunofluorescence Microscopy
Immunofluorescence Microscopy of Mouse Anti-Biotin antibody. Tissue: HeLa cells. Fixation: 0.5% PFA. Antigen retrieval: not required. Gain: 800. Primary antibody: Biotinylated anti-transferrin receptor antibody. Secondary antibody: CF™488A anti-biotin secondary antibody at 1ug/mL for 45 min at RT. Localization/Staining: plasma membrane and endosome.



Western Blot
Western Blot of Mouse Anti-Biotin Monoclonal Antibody. Lane 1: Opal PreStained Molecular Weight Marker (p/n MB-210-0500). Lane 2: Bovine Albumin (BSA) (p/n 001-0133) [20ng]. Lane 3: Bovine Albumin-Biotin conjugated (p/n 001-0633) [20ng]. Primary Antibody: Anti-Biotin at 1.0µg/mL overnight at 2-8°C. Secondary Antibody: Rabbit Anti-Mouse IgG (gamma 1, 2a, 2b and 3 chain) Antibody Peroxidase Conjugated (p/n 610-403-C46) at 1:40,000 for 30mins at RT. Blocking Buffer: BlockOut Buffer (p/n MB-073) for 1hr at RT. Predicted MW: 75kDa. Exposure: 2sec.

References

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