

Datasheet for 200-301-098S**Biotin Monoclonal Antibody****Overview**

Description:	Anti-Biotin (MOUSE) Monoclonal Antibody - 200-301-098S
Item No.:	200-301-098S
Size:	25 µL
Applications:	ELISA, IF, WB, LFA, Other
Reactivity:	Biotin
Host Species:	Mouse

Product Details

Background:	Localization of biotinylated probes with avidin produces may produce high background levels. Anti-biotin antibodies may be substituted for avidin to decrease non-specific binding.
Synonyms:	mouse anti-Biotin Monoclonal Antibody, Anti-Biotin, Vitamin B4 antibody
Host Species:	Mouse
Clonality:	Monoclonal
Clone ID:	4C7.D5
Format:	IgG2a

Target Details

Reactivity:	Biotin
Immunogen Type:	Other
Immunogen:	Biotin conjugated to Keyhole Limpet Hemocyanin (b-KLH)
Purity/Specificity:	Biotin Antibody was prepared from mouse ascites by immunoaffinity chromatography using Biotin coupled to 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 µg/mL
IHC:	1:1,000 - 1:5,000
WB:	1:2,000 - 1:10,000
Other:	414ug for Biotium

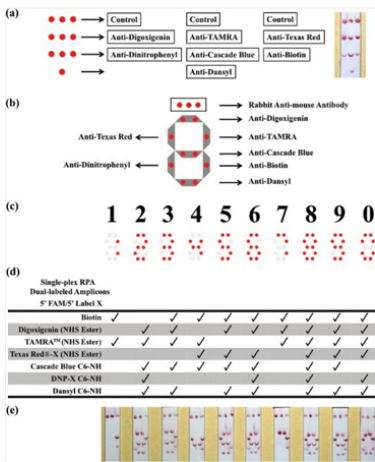
Formulation

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 Biotin antibody at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



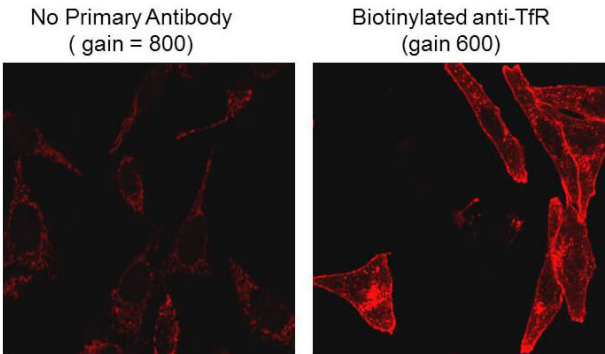
Lateral Flow

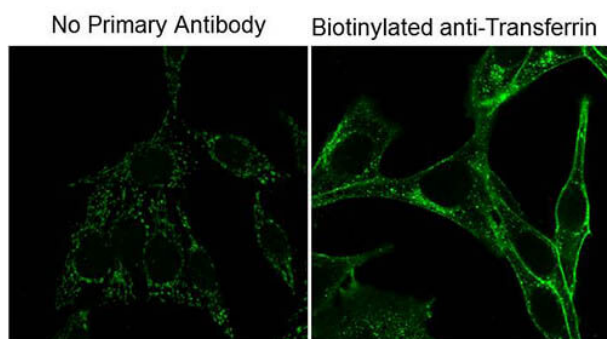
Single-plex RPA in combination with multiplexed LFD detection. (a) Positioning of detection antibodies deposited upon multiplex LFDs (left); all seven dual-labeled RPA amplicons (3.0 μ L of 5' FAM/3' biotin and 5' FAM/3' Dansyl-X C6-NH and 2.0 μ L of 5' FAM/3' X, X = digoxigenin (NHS ester), TAMRA (NHS 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 μ L of 5' FAM/5' biotin and 5' FAM/5' Dansyl-X C6-NH and 2.0 μ L 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

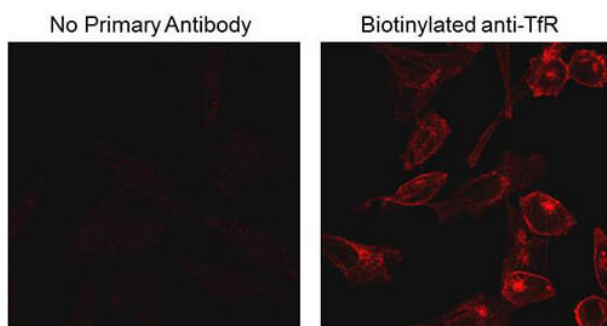
Immunofluorescence Microscopy of Mouse Anti-Biotin antibody. Tissue: HeLa cells. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: Biotinylated anti-transferrin receptor antibody. Secondary antibody: CF™488A anti-biotin secondary antibody at 2ug/mL for 45 min at RT. Localization/Staining: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





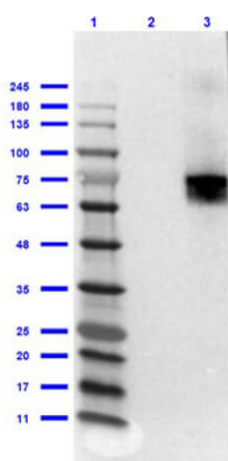
Immunofluorescence Microscopy

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

- Oundavong S et al Identification of a novel rhoptry protein expressed predominantly in Plasmodium sporozoites. *Front Cell Infect Microbiol.* (2026)
- George J et al. Optimized proximity ligation assay (PLA) for detection of RNA-protein complex interactions in cell lines. *STAR Protoc.* (2022)
- George J et al. RNA-binding protein FXR1 drives cMYC translation by recruiting eIF4F complex to the translation start site. *Cell Rep.* (2021)
- Li, J et al. Multiplex Detection of Nucleic Acids Using Recombinase Polymerase Amplification and a Molecular Colorimetric 7-Segment Display. *Acs Omega* (2019)

Disclaimer

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