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Datasheet for S000-00

Streptavidin Rhodamine Conjugated

Overview

Description:	Streptavidin Rhodamine Conjugated - S000-00
Item No.:	S000-00
Size:	1 mg
Applications:	FISH, IHC

Product Details

Background:	Streptavidin is isolated from bacteria, Streptomyces avidinii, and has an exceptionally high binding affinity for B7 (biotin). Rockland offers streptavidin in unconjugated and conjugated forms for common immunoassays including ELISA, western blotting, immunohistochemistry. Streptavidin is a tetrameric protein capable of binding 4 biotin groups to each molecule of streptavidin. While streptavidin has identical binding properties as avidin, it lacks the glycoprotein portion of the molecule and therefore shows less non-specific binding. Streptavidin is a slightly smaller molecule with a molecular weight of approximately 53.6 kDa. The sequence of avidin only shows 30% homology with streptavidin, and anti-avidin and anti-streptavidin antibodies are not immunologically cross reactive. Rockland Immunochemicals conjugates Rhodamine to Affinity Purified antibodies, avidin, streptavidin and F(ab)2 Fragments of Affinity Purified Antibodies. The molar ratio of Rhodamine to protein (F/P ratio) in the conjugate ranges from 2 - 3. Rhodamine fluorochrome perform extremely well in double label experiments with fluorescein.
Synonyms:	SA, S avidin, streptococcus avidin, streptavidin TRITC
Conjugate:	Rhodamine (TRITC)
F/P Ratio:	3.82

Target Details

Purity/Specificity:	This product was prepared from pure Streptavidin as determined by electrophoresis. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Streptavidin.
Relevant Links:	• S000-00 SDS

Application Details

Suggested Applications:	FISH, IHC (Based on references)
Application Note:	This product is designed for immunofluorescence microscopy, fluorescence based plate assays (FLISA) and fluorescent western blotting. This product is also suitable for multiplex analysis, including multicolor imaging, utilizing various commercial platforms.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
FLISA:	1:10,000 - 1:50,000
IF:	1:1,000 - 1:5,000

Formulation

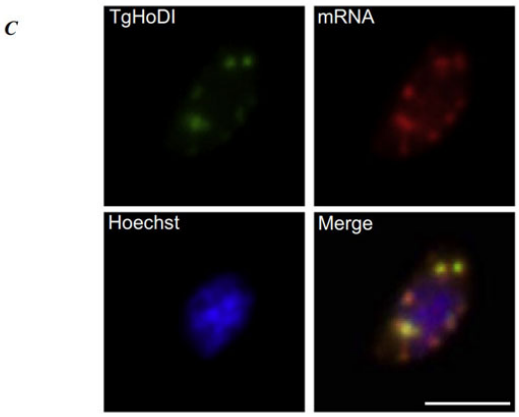
Physical State:	Lyophilized
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free
Reconstitution Volume:	1.0 mL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

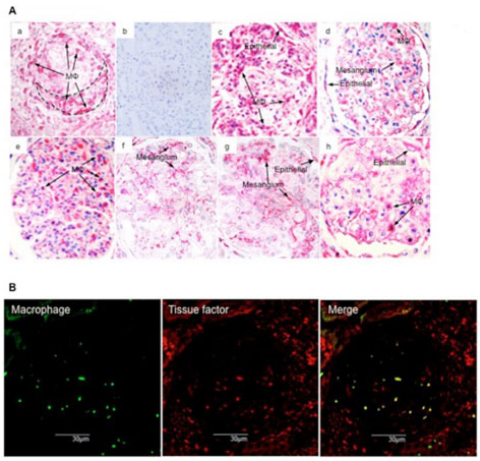
Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for 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

Bottle
Streptavidin Rhodamine Conjugated



Fluorescence in situ Hybridization (FISH)
The localization of TgHoDI. C. TgHoDI-containing granular structures (false colored green), and the location of cytoplasmic mRNA granules were visualized following fluorescent in-situ hybridization using an oligo-dT-biotin probe which was subsequently revealed using rhodamine conjugated streptavidin (red) [p/n S000-00]. TgHoDI colocalizes with cytoplasmic mRNA foci (yellow). Scale bars represent 5 µm. Fig 5. PMID: 24709106.



Immunohistochemistry
Glomerular tissue factor expression in biopsy tissues. (A) Representative tissue factor expression patterns of renal biopsy tissues as shown by immunostaining. All patients, except those with acute glomerulonephritis (AGN), had thrombinuria. (a) Crescentic glomerulonephritis (CresGN); (b) control staining of CresGN with normal mouse IgG; (c) membranoproliferative glomerulonephritis; (d) IgA nephropathy; (e) AGN; (f) minimal change glomerulopathy; (g) focal segmental glomerulosclerosis; and (h) membranous nephropathy. Mϕ indicates monocytes/macrophages; Epithelial, epithelial cells; and Mesangium, mesangial areas. The broken line in (a) outlines a cellular crescent. (B) Double-staining pattern of CD68 (macrophages) and tissue factor in the CresGN glomerulus. Streptavidin Rhodamine (p/n S000-00). Fig 2. PMID: 25742509.

References

- Kitamoto, Y et al. Urinary thrombin: a novel marker of glomerular inflammation for the diagnosis of crescentic glomerulonephritis (prospective observational study). *PloS One* (2015)
- Cherry AA et al. Characterization of a homolog of DEAD-box RNA helicases in Toxoplasma gondii as a marker of cytoplasmic mRNP stress granules. *Gene.* (2014)

Disclaimer

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