Oyster® - Streptavidin

Revised: May 2005

Warning:
This product is for research use only.
Not recommended or intended for diagnosis of disease in humans or animals. Do not use internally or externally in humans or animals.

Contains sodium azide. For further instructions see material safety data sheet (MSDS).

Introduction

Streptavidin is a biotin-binding protein, which is excreted by the bacterium *Streptomyces avidinii*. Streptavidin is a non-glycosylated 55 kDa protein, which is composed of 4 essentially identical polypeptide chains. Unlike avidin, with an isoelectric point of 10.5, streptavidin is neutral at pH 7. This is the reason, why streptavidin shows considerably less non-specific binding and thus less background as avidin, which makes it the reagent of choice for the detection of biotinylated biomolecules.

Formulation

Our Oyster®-Streptavidin conjugates are supplied as lyophilized powder in 1 mg quantities. For stabilization and preservation the conjugate is lyophilized from a solution containing 10 % bovine serum albumin and 0.05 % sodium azide in phosphate buffered saline (PBS), pH 7.4. Highly purified and electrophoretically homogeneous streptavidin was conjugated with Oyster® dyes under optimized conditions and is free of non-conjugated fluorophore.

Storage

Avoid freeze-thaw cycles. Protect from light during storage. Keep the container at 4°C before opening. For long term storage, addition of 40 % glycerol (w/v) and storage at -20 °C is recommended. Under these conditions the product is stable for at least 6 months.

Applications

Fluorescent streptavidin conjugates can be used in many common applications including immune-histochemistry, Western blotting, Fluorescence *In Situ* Hybridisation (FISH) and ELISA.

The exact working concentrations should be determined individually by the researcher, as the appropriate concentration is affected by the concentration of the biotinylated biomolecule, the incubation time or the affinity of the antigens or antibodies used.

We recommend the following concentrations to start with:

Immune-histochemistry:	1:200 to 1:500
Western blot	1:1,000 to 1:2,000
ELISA	1:2,000 to 1:5,000

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Oyster®-Streptavidin conjugates are available as

Label	Ex_{max}	Em_{max}	Product code
Oyster® 550	555	574	OY-550-SAV-1x1
Oyster® 650	655	674	OY-650-SAV-1x1

Oyster® 550-Streptavidin
The Oyster®-550-Streptavidin is a bright, orange fluorescent conjugate, which is excited best by the 546 nm line of a mercury-arc lamp or the 543 nm of a He-Ne laser. Oyster®-550 is spectrally similar to Cy3 ™, Tetramethylrhodamine (TRITC) or Alexa Fluor® 555.

Oyster® 650-Streptavidin
The Oyster®-650-Streptavidin is a bright, red fluorescent conjugate, which is excited best by the 633 nm line of a He-Ne laser or the 647 nm of a Kr-Ar laser. Oyster®-650 is spectrally similar to Cy5 ™ or Alexa Fluor® 647.

For further information please contact our technical support

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