

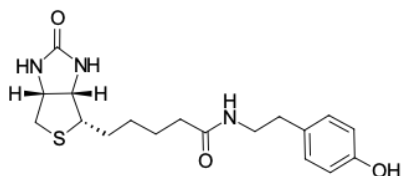
## Biotinyl tyramide

<http://www.lumiprobe.com/p/biotinyl-tyramide>

Tyramide signal amplification (TSA) is the most versatile and effective way to enhance the intensity of the fluorescent signal, used in immunohistochemistry (IHC), immunocytochemistry (ICC), and fluorescence *in situ* hybridization (FISH). The TSA method is based on the ability of horseradish peroxidase (HRP) in the presence of low concentrations of hydrogen peroxide to convert a labeled tyramine-containing substrate into an oxidized, highly reactive free radical that covalently binds to the tyrosine residues of protein molecules located next to it.

Compared to conventional procedures, the TSA method increases the sensitivity of immunofluorescent detection of target molecules by more than 100 times, making it particularly suitable for detecting low-concentration targets. In applications where increased detection sensitivity is not required, TSA can significantly reduce antibody or probe concentrations without loss of signal intensity, thereby reducing background staining due to cross-reactivity or non-specific binding of antibodies.

This tyramide is a biotin derivative for tyramide amplification and subsequent signal detection with a labeled streptavidin conjugate. It can be used with any antibody or other molecules conjugated to HRP to stain cells and tissues by immunofluorescence methods.



**Structure of Biotinyl tyramide**

### General properties

Appearance: white solid

Molecular weight: 363.48

CAS number: 41994-02-9

Molecular formula:  $C_{18}H_{25}N_3O_3S$

Solubility: DMSO, DMF, methanol

Quality control: NMR  $^1H$  and HPLC-MS (95+%)

Storage conditions: 24 months after receipt at  $-20^{\circ}C$  in the dark. Transportation: at room temperature for up to 3 weeks. Desiccate.

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