Biotin TSA（200×）

Cat. No.: HY-D1839

Target: Fluorescent Dye

Pathway: Others

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	Biotin TSA (200×) (Biotin Tyramide) is a biotin derivative used for tyramide signal amplification (TSA), as a reagent to amplify both immunohistochemical signals and in situ hybridization protocols. Biotinyl tyramide can be used for the research of tyramide signal amplification[1][2][3][4][5].
In Vitro	Biotinyl tyramide (100 μM, 5min) and hemin (HY-19424) enhance biotinylation of starved U2OS cells after validating the G4-specific biotinylation activity of RNA-hemin complexes in vitro[6]. Biotinyl tyramide (27.5 μM, 5min) binds to the tyrosine side chains of cell surface proteins in HaCaT wild-type cells or CRISPR-modified dual oxidase 1 (DUOX1) knockout cells[7]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Nat Cell Biol. 2022 Apr;24(4):497-512.
- Nat Commun. 2023 Apr 25.
- Genome Biol. 2022 Dec 15;23(1):259.

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REFERENCES

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[2]. Kharel P, et al. Stress promotes RNA G-quadruplex folding in human cells [J]. Nature Communications, 2023, 14(1): 205.

[3]. Bobrow M N, et al. Catalyzed reporter deposition, a novel method of signal amplification application to immunoassays [J]. Journal of immunological methods, 1989, 125(1-2): 279-285.

[4]. Pató A, et al. Hydrogen peroxide production by epidermal dual oxidase 1 regulates nociceptive sensory signals [J]. Redox Biology, 2023, 62: 102670.

[5]. Kim S H, et al. An improved protocol of biotinylated tyramine-based immunohistochemistry minimizing nonspecific background staining [J]. Journal of Histochemistry

& Cytochemistry, 2003, 51(1): 129-132.

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[7]. Hunyady B, et al. Immunohistochemical signal amplification by catalyzed reporter deposition and its application in double immunostaining [J]. Journal of Histochemistry & Cytochemistry, 1996, 44(12): 1353-1362.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA