

PRODUCT INFORMATION

SenTraGor™ Cell Senescence Reagent

Item No. 35568

CAS Registry No.: 2171036-89-6
Formal Name: (3a*S*,4*S*,6a*R*)-hexahydro-2-oxo-1*H*-thieno[3,4-*d*]imidazole-4-pentanoic acid, [2,3-dihydro-2-methyl-6-[(1*E*)-2-[4-[(1*E*)-2-phenyldiazenyl]-1-naphthalenyl]diazonyl]-1*H*-perimidin-2-yl]methyl ester

Synonyms: GL13, SBB-A-B, SBB-Analogue (GL13) Biotin

MF: C₃₉H₃₈N₈O₃S

FW: 698.8

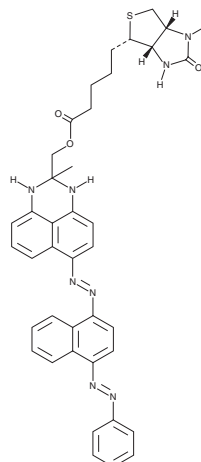
Purity: ≥95%

UV/Vis.: λ_{max}: 596 nm

Supplied as: A solid

Storage: -20°C

Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

SenTraGor™ reagent for cell senescent detection is supplied as a solid powder. A working solution can be made by dissolving the SenTraGor™ reagent in 100% (absolute) ethanol, following the guidelines below.¹

Dilution:

Add 350-375 μl (2 mg SenTraGor™), 875-935 μl (5 mg SenTraGor™), 1.75-1.875 ml (10 mg SenTraGor™), or 3.5-3.75 ml (20 mg SenTraGor™) 100% ethanol to the vial with the reagent and cover it with its cap and Parafilm™.

Incubate at 56°C in a water bath for 120 minutes until the reagent is completely dissolved. Store at room temperature.

Caution:

During the entire process the dye container must be sealed air tight to prevent evaporation of ethanol. Ethanol evaporation would lead to precipitation of the saturated dye solution in tissues.

If a non-specific (high background staining, which results in a poor signal-to-noise ratio) reaction of the reagent is observed, adjust the final volume to 375 μl (2 mg SenTraGor™), 935 μl (5 mg SenTraGor™), 1.875 ml (10 mg SenTraGor™), or 3.75 ml (20 mg SenTraGor™).

Description

SenTraGor™ cell senescence reagent is a detection reagent for lipofuscin, a nondegradable lysosomal marker of cellular senescence.^{2,3} It is composed of a Sudan Black B (SBB) derivative conjugated to biotin (Item No. 22582) and can be detected using an anti-biotin antibody. SenTraGor™ cell senescence reagent has been used to detect lipofuscin accumulation in Vero E6 cells infected with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and primary non-small cell lung cancer (NSCLC) samples as well as soluble lipofuscin in serum from patients with various diseases, including dementia and rheumatoid arthritis.⁴⁻⁶

References

1. Kohli, J., Wang, B., Brandenburg, S.M., *et al. Nat. Protoc.* **16**(5), 2471-2498 (2021).
2. Evangelou, K., Lougiakis, N., Rizou, S.V., *et al. Aging Cell* **16**(1), 192-197 (2017).
3. Gorgoulis, V., Adams, P.D., Alimonti, A., *et al. Cell* **179**(4), 813-827 (2019).
4. Evangelou, K., Veroutis, D., Paschalaki, K., *et al. Eur. Respir. J.* **2102951** (2022).
5. Giatromanolaki, A., Kouroupi, M., Balaska, K., *et al. In Vivo* **34**(6), 3187-3193 (2020).
6. Rizou, S.V., Evangelou, K., Myrianthopoulos, V., *et al. Demaria, M., editor, 1st edition, Humana* (2019).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM