Easy Quantitative Detection of Senescent Cells with

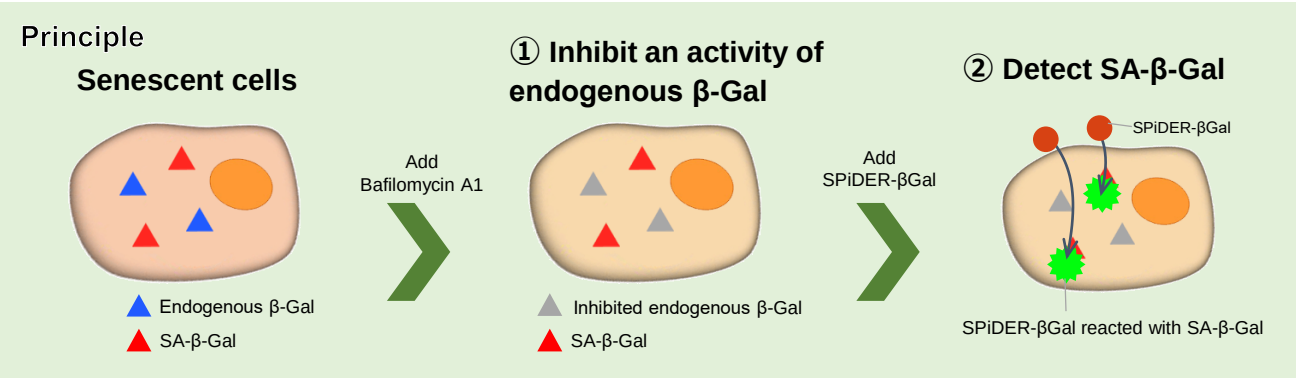
Cellular Senescence Detection Kit - SPiDER-βGal

Features

- **Quantitative Detection**
- **Applicable for Living Cells**
- **Staining time 30 min**

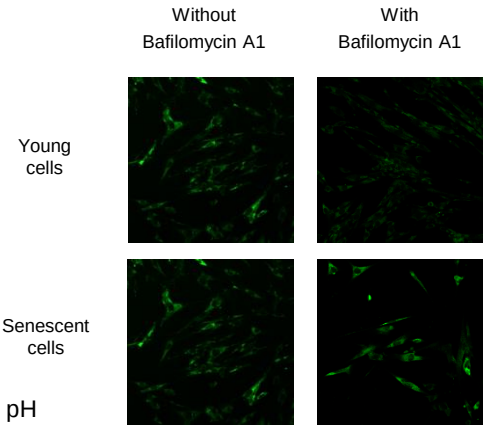
Principle

SPiDER-βGal, a fluorescent probe in the kit, which possesses cell-permeability and the ability to retain in the intracellular region. SPiDER-βGal is applicable for living cells staining and it enables you to capture vivid fluorescence imaging. The kit includes SPiDER-βGal and Bafilomycin A1.



Why is Bafilomycin A1 added?

To detect SA-β-Gal selectively, endogenous β-galactosidase inside living cells has to be inhibited. Bafilomycin A1 is an inhibitor of ATPase in lysosomes. pH in lysosomes is kept neutral by adding Bafilomycin A1.



※Bafilomycin A1 is used for living cells assay only.
※Bafilomycin A1 is not used in fixed cells assay because intracellular pH is controlled with the buffer.

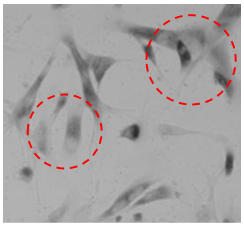
Product	Code#	Unit
Cellular Senescence Detection Kit - SPiDER-βGal	SG03	10 assays

Cellular Senescence Detection Kit - SPiDER-βGal

Difference between X-Gal method and Cellular Senescence Detection Kit - SPiDER-βGal

X-Gal Method

Detection Method: Microscope

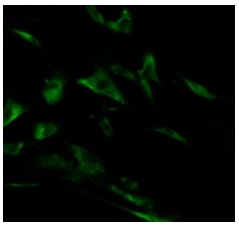


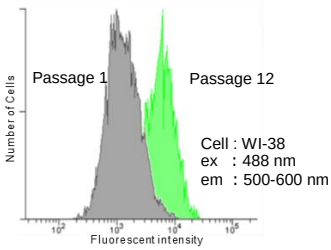
Difficult to...

- **Count the cells**
- **Distinguish positive and/or negative cells**

Dojindo's kit

Detection Method: Microscope, Flow Cytometry

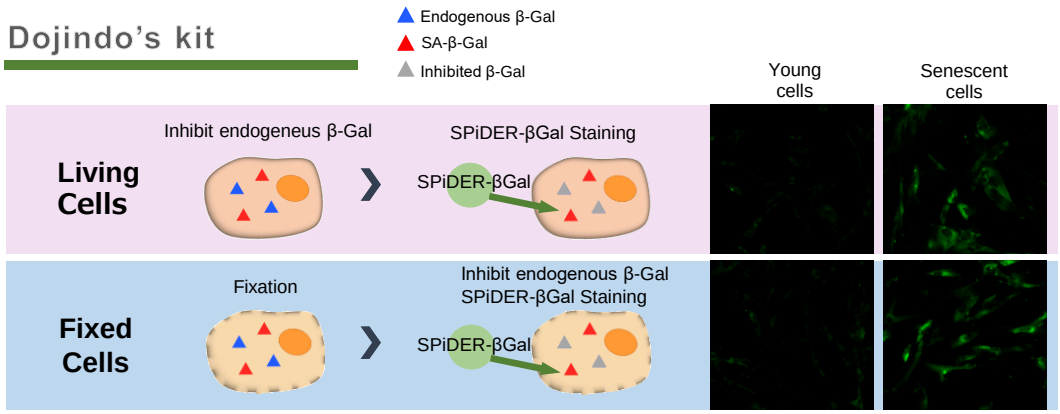




Difficult to Quantify

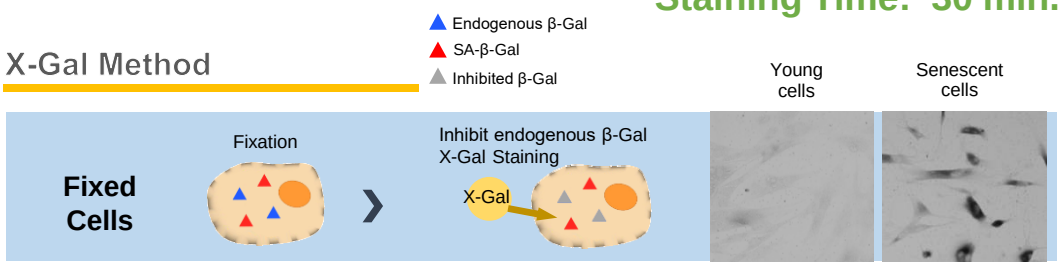
Quantify with FCM

Dojindo's kit



Staining Time: 30 min.

X-Gal Method



Staining Time: 16 hrs.

References

SPiDER-βGal

T. Doura, M. Kamiya, F. Obata, Y. Yamaguchi, T. Y. Hiyama, T. Matsuda, A. Fukamizu, M. Noda, M. Miura, Y. Urano, "Detection of LacZ-Positive Cells in Living Tissue with Single-Cell Resolution", Angew Chem Int Ed Engl., **2016,** 55(33), 9620-4

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