Cellular Senescence Detection Kit - SPiDER-βGal

Tips for a Successful Assay

Troubleshooting

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DOJINDO MOLECULAR TECHNOLOGIES, INC.

Problem	Causes and Solution
Background in control cells	Reagents were not prepared correctly. Check that the reagents were stored correctly. SPiDER-βGal DMSO **stock solution** and Bafilomycin A1 DMSO **stock solution** is **stable for 1 month at -20 ℃**. SPiDER-βGal **working solution** and Bafilomycin A1 **working solution can't be stored.** Be sure to use the working solution immediately.
Background in senescent cells without adding SPiDER-βGal working solution	Lipofuscin, which consists of autofluorescent granules, accumulated in the senescent cells. In order to achieve accurate SA-β-gal activity assay in senescent cells, we recommend to prepare samples without SPiDER-βGal staining. Please compare fluorescence intensity of both cells with / without SPiDER-βGal staining. For Microscopy or Flow Cytometry **Please visit product page and check "FAQ"**.
Background in fix cells assay	The incubation with SPiDER-βGal working solution was done in a 5% CO_2 incubator. We recommend not to use a 5% CO_2 incubator **during incubation with SPiDER-βGal working solution**. If incubation is done in a 5% CO_2 incubator, the pH of the buffer may become acidic. Acidic pH results in higher background from the endogenous β-galactosidase activity and it would be difficult to distinguish between control cells and senescent cells. **Please incubate the plate in a dry incubator without CO_2.**
No difference in fluorescence intensity between senescent cells and control cells.	Cellular senescence wasn't induced. Please prepare for positive control. **Please visit product page and check "Positive Control"**.
Low fluorescence reading	Incubation time with SPiDER-βGal working solution was short. **Optimize the incubation time (～ 60 min)**.
	Concentration of SPiDER-βGal working solution was low. **Optimize the concentration (～2 times the concentration described in the technical manual)**.

For questions not addressed here, please contact us.
Email: info@dojindo.eu.com