

## Senescence Detection Kit (SA-β-gal Staining)

### Ordering info:

Cat No.	Size
CA090	100 assays

### Includes for 100 assays:

- 150 mg X-Gal (lyophilized)
- PBS (10x)
- Staining Solution A
- Staining Solution B
- Staining Solution C
- Fixative solution (10x)



### Related Products:

- PBS (p.133)
- X-Gal (p.19)

### Description:

Senescence detection kit is a fast, convenient and easy-to-use kit that measures activity of SA-B-Gal in cells cultures by hydrolysis of X-gal, which results in the accumulation of a distinctive blue color in senescent cells.

Senescence cells display a phenotype like increase of cell size, distinctive flat morphology, changes in gene expression and activity of senescence-associate β-galactosidase (SA-β-gal).

Senescence represent tumor suppressor mechanism for this reason cellular senescence has become an increasingly target in the development of novel therapeutics.

### Advantages & Features:

- ✓ **Fast, convenient and easy procedure:** takes 28 minutes to results with minimal handling steps.
- ✓ **The specific histochemical marker is only present in senescent cells** and is not found in pre-senescent, quiescent or immortal cells.

### Applications:

- ✓ Histochemically detect SA-β-Galactosidase activity in cultured cell and tissue sections.

## Reporter Gene Assays

### SEAP Reporter Gene Assay



### Ordering info:

Cat No.	Size
CA040	288 assays

### Includes for 288 assays:

- 3 x 96 W Solid Plate (white)
- 3 units of lid
- 50 μl Alkaline Phosphatase Standard
- 15 mL SEAP Substrate (Luminescence)



### Related Products:

- FastCONTROL™ Dual Reporter Plasmid (p.28)
- CANFAST™ Transfection Reagent (p.76)

### Description:

Secreted alkaline phosphatase (SEAP) reporter gene is an easy, sensitive and fast assay that utilizes enzyme activity of alkaline phosphatase to dephosphorylate the chemiluminescent Alkaline Phosphatase substrate into an unstable dioxetane anion which decomposes and emits light.

SEAP encodes a truncated form of the placental enzyme that lacks the membrane anchoring domain, thereby allowing the protein to secret efficiently from transfected cells.

Changes in levels of SEAP activity detected in the culture medium are directly proportional to changes in intracellular concentrations of SEAP mRNA and protein.

### Advantages & Features:

- ✓ **Convenient:** single set of cells are used for both the SEAP assay and another purpose.
- ✓ **Time-saving protocol:** results in 55 minutes due the elimination of cell lysates preparation.
- ✓ **Cost-effective:** allows performance directly in a microtiter plate.
- ✓ **Sensitive:** assayed even in low cell concentrations.
- ✓ **Secreted** from transfected cells into the culture medium.

### Applications:

- ✓ Measurement the levels of SEAP in the culture medium of transfected cells.