



Myc Reporter Kit (Myc Signaling Pathway)

Product Information

Cat.No.

Kit-1785

Product Overview

The Myc signaling pathway plays an important role in cell proliferation, differentiation, transformation and apoptosis. The c-Myc protein is a transcription factor that heterodimerizes with Max to regulate Myc signaling pathway responsive genes. Myc mutations have been linked to the development of a number of human cancers, including Burkitt's lymphoma, cervical, ovarian, breast, lung and pancreatic carcinoma, making Myc a promising therapeutic target for cancer treatment.

Size

500 reactions

Description

The Myc Pathway Reporter kit is designed for monitoring the activity of the Myc signaling pathway in cultured cells. The kit contains a transfection-ready expression vector for c- Myc and Myc luciferase reporter vector. Inside the cells, c-Myc will bind to Max, translocate to the nucleus, and induce expression of the Myc luciferase reporter vector. This reporter contains the firefly luciferase gene under the control of multimerized Myc responsive elements located upstream of a minimal promoter. The Myc reporter is premixed with constitutively-expressing Renilla (sea pansy) luciferase vector, which serves as an internal positive control for transfection efficiency. The kit also includes a non-inducible firefly luciferase vector premixed with constitutively expressing Renilla luciferase vector as a negative control. The non-inducible luciferase vector contains a firefly luciferase gene under the control of a minimal promoter, but without any additional response elements. The negative control is critical for determining pathway-specific effects and background luciferase activity.

Applications

- Monitor Myc signaling pathway activity.
 - Screen activators or inhibitors of the Myc signaling pathway.
 - Study effects of RNAi or gene overexpression on the activity of the Myc pathway.
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Storage

Stable at least 12 months from date of receipt, when stored as directed (-20°C).

Kit Components

Reporter (Component A): Myc luciferase reporter vector + constitutively-expressing Renilla luciferase vector; 500 µl (60 ng DNA/µl); -20°C Negative Control Reporter (Component B): Non-inducible luciferase vector + constitutively-expressing Renilla luciferase vector; 500 µl (60 ng DNA/µl); -20°C c-Myc Expression Vector (Component C): c-Myc expression vector; 500 µl (100 ng DNA/µl); -20°C Negative Control Expression Vector (Component D): Empty expression vector without c-Myc; 500 µl (100 ng DNA/µl); -20°C These vectors are designed for use in transient transfections. They are NOT SUITABLE for transformation and amplification in bacteria.
