

Signal Reporter Assay Kit

STAT3 Reporter Assay Kit

Cat. no. 336841 CCS-9028L

For study of pathway activity

The Signal STAT3 Reporter Assay Kit is designed to measure the transcriptional activity of STAT3 homodimers and STAT3/STAT1 heterodimers. STAT3 is activated through phosphorylation in response to various cytokines and growth factors including IFN γ , IL-6 and OSM. The activation of STAT3 results in formation of STAT3 homodimers and STAT3/STAT1 heterodimers, which interact with the sis-inducible element (SIE), a promoter sequence, thereby inducing transcription of genes related to cellular processes such as cell growth and apoptosis. The STAT3 reporter is a mixture of a luciferase construct under the control of multiple SIE and a constitutively expressing Renilla element (40:1). The STAT3-responsive luciferase construct encodes the firefly luciferase reporter gene under the control of a minimal (m)CMV promoter and tandem repeats of the SIE transcriptional response element. The number of response elements and the intervening sequence between these response elements has been experimentally optimized to maximize the signal to noise ratio. This construct monitors both increases and decreases in the transcriptional activity of STAT3, and hence the activity of the STAT3 signaling pathway. The constitutively expressing Renilla construct encodes the Renilla luciferase reporter gene under the control of a CMV immediately early enhancer/promoter and acts as an internal control for normalizing transfection efficiencies and monitoring cell viability. Using a simple dual-luciferase assay, you can easily monitor the activity of STAT3 signaling pathways and determine the effect of various treatments, such as gene knockdown, over-expression, and chemical compounds on those pathways.

For further details, consult the *Signal Reporter Assay Handbook*.

Shipping and storage

The Signal Reporter Assay Kit is shipped on dry ice or blue ice. Store at -20°C . When stored under these conditions, this product can be used for 6 months from the date of receipt without reduction in performance.

Note: Open the package and store the products appropriately immediately on receipt.

Performance data

Visit the Website to view performance data for this product.



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Product	Contents	Cat. no.
Signal Reporter Assay Kit	For 500 reporter assays, 500 negative control assays, and 250 positive control assays when using the recommended 96-well plate transfection protocol; 500 μ l (100 ng/ μ l) Reporter (40:1 mixture of inducible firefly luciferase construct and constitutively expressing Renilla luciferase construct); 500 μ l (100 ng/ μ l) Negative control (40:1 mixture of non-inducible firefly luciferase construct and constitutively expressing Renilla luciferase construct); 250 μ l (100 ng/ μ l) Positive control (40:1:1 mixture of constitutively expressing GFP, constitutively expressing firefly luciferase, and constitutively expressing Renilla luciferase constructs)	Varies

Signal Reporter Assay Kit products are intended for molecular biology applications. These products are not intended for the diagnosis, prevention, or treatment of a disease.

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at www.qiagen.com or can be requested from QIAGEN Technical Services or your local distributor.

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