CREATIVE BIOMART®
Assay Kit

EZH2 (A677G) Chemiluminescent Assay Kit

Product Information

Cat.No. Kit-1723

Product Overview

EZH2 is the catalytic subunit of the PRC2/EED-EZH2 complex, which methylates Lys9 (H3K9me) and Lys27 (H3K27me) of histone H3, leading to transcriptional repression of the affected target gene. Able to mono-, di- and trimethylate Lys27 of histone H3 to form H3K27me1, H3K27me2 and H3K27me3, respectively. Compared to EZH2-containing complexes, it is more abundant in embryonic stem cells and plays a major role in forming H3K27me3, which is required for embryonic stem cell identity and proper differentiation. The PRC2/EED-EZH2 complex may also serve as a recruiting platform for DNA methyltransferases, thereby linking two epigenetic repression systems. Genes repressed by the PRC2/EED-EZH2 complex include HOXC8, HOXA9, MYT1, CDKN2A and retinoic acid target genes. EZH2 can also methylate non-histone proteins such as the transcription factor GATA4.

Size

96 reactions

Description

The EZH2 (A677G) Chemiluminescent Assay Kit is designed to measure activity of the mutant EZH2 complex [EZH2 (A677G)/EED/ SUZ12/ RbAp48/AEBP] for screening and profiling purposes. The key to the EZH2 (A677G) Assay Kit is a highly specific antibody that recognizes methylated Histone H3K27. With this kit, only three simple steps on a microtiter plate are required for methyltransferase detection. First, S-adenosylmethionine is incubated with a sample containing assay buffer and methyltransferase enzyme for one hour. Next, primary antibody is added. Finally, the strips are treated with an HRP-labeled secondary antibody followed by addition of the HRP substrate to produce chemiluminescence that can then be measured using a chemiluminescence reader.

Storage

One year from date of receipt when stored as directed.

Kit Components

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EZH2 (A677G)/EED/SUZ12/RbAp48/AEBP2: 20 µg; -80°C20 µM S-adenosylmethionine: 250 µl; -80°C Primary Antibody 24: 25 µl; -80°C Secondary HRP-labeled antibody 2: 10 µl; -80°C 4x HMT assay buffer 2B: 3 ml; -20°C Blocking buffer: 50 ml; +4°C HRP chemiluminescent substrate A (translucent bottle): 6 ml; +4°C HRP chemiluminescent substrate B (brown bottle): 6 ml; +4°C 96-well plate precoated with histone substrate: 1 plate; +4°C

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