CREATIVE BIOMART®
Assay Kit

p53 Nuclear Translocation Assay Kit (Cell-Based)

Product Information

Cat

Kit-1037

Common Name

p53

Cat.No. Kit-1037

Description

p53 is a tumor suppressor gene which encodes a transcription factor that controls cell's destiny. This gene gets activated when cells are exposed to increased cellular stress, or DNA damage. The levels of p53 are elevated when post-translational modifications occur, which block its sequestration and/or ubiquitination by its destabilizer, Mouse Double Minute 2 Homolog (MDM2) which in turn is a transcriptional target of p53. Due to the three putative nuclear localization signals (NLSs) on its C-terminus, some of the activated p53 protein translocates into the nucleus and activate genes that induce cell cycle arrest, senescence, or apoptosis.The p53 gene is frequently mutated in cancer cells, and about 50% of cancers show p53 mutations, resulting in loss of its functions. The loss of p53 functionality can lead to dysregulation of many biological processes in cells, such as metabolic pathways, cellular homeostasis, cell movement, apoptosis, etc. p53 Nuclear Translocation Assay Kit (Cell-Based) provides an easy and complete assay kit to visualize the activation and nuclear translocation of p53 in human cells. This assay kit uses specific and sensitive human p53 antibody and a p53 secondary antibody to visualize the localization of p53 in fixed common human cells along with DAPI, a fluorescent stain, for nuclear staining. The kit includes Nutlin-3, a potent selective inhibitor that disrupts the protein-protein interaction between p53 and MDM2. Nutlin-3 serves as a control to induce p53 translocation from the cytoplasm to the nucleus.

Applications

Visualize nuclear translocation and activation of p53 protein in mammalian cells.

Storage

-20°C

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Fax:1-631-938-8127
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Assay Kit

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Shipping	
Gel Pack	
Size	
50 assays	
Kit Components	
1X Fixative Solution; 1X Permeabilization Buffer; 1X Blocking Buffer; p53 Primary Antibody (500X); Nutlin-3 Reagent (200X); DAPI (1000X)	
Target Species	
Mammalian	
Detection method	Fluorescence (Ex/Em = 360/460 nm)
Features & Benefits	
Simple procedure to visualize p53 nuclear translocation in ~ 3 hours; Fast and contains Nutlin-3 that serves as a control to induce p53 translocation from the cytoplasm to the nucleus.	

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