

# c-FOS (Human) Transcription Factor Activity Assay Kit

## Product Information

### Cat

Kit-2230

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## Product Overview

Activator protein-1 (AP-1) is a sequence-specific transcriptional activator composed of members of the Jun (c-Jun, JunB, and JunD) and Fos (c-FOS, FosB, Fra1, and Fra2) families in formats of homo- and heterodimers. These proteins belong to the bZIP group of DNA binding proteins with the ability to a common consensus sequence-defined AP-1-binding site. Inside cells, AP-1 activity is induced by an incredible diversity of signals, including growth factors, cellular stress, ionizing and ultraviolet irradiation, DNA damage, oxidative stress, neuronal depolarization antigen binding by T or B lymphocytes, and cytokines. The mechanisms involved in the induction of AP-1 activity are either through changing the expression of AP-1 components or post-translation modification or both to regulate their trans-activity positively or negatively. For example, stimulation by growth factors or by activating mutations in cytoplasmic effectors such as ras and raf, results in AP-1 activation by triggering the ERK signaling pathway. On the other hand, AP-1 responses to proinflammatory cytokines and UV radiation are mostly dependent on two other MAPK cascades, JNK and p38 of MAP kinases. As a result, the AP-1 regulates different target genes executing different biological functions such as cell proliferation, differentiation, apoptosis, or cell death. The c-FOS Transcription Factor-Activity Assay kit is a non-radioactive transcription factor assay with an ELISA format. It offers an easy, speedy, sensitive and high-throughput method to detect the activation of transcription factors.

## Applications

Detecting the c-FOS in human nuclear extraction and whole lysates.

## Storage

-20°C

# c-FOS (Human) Transcription Factor Activity Assay Kit

## Shipping

Gel Pack

## Size

100 assays

## Kit Components

Microplate; DNA Binding Buffer (5X); Positive Control; Specific Competitor DNA Probe; Non-specific Competitor DNA Probe; Assay Reagent; DTT (300 mM); Wash Buffer Concentrate (20X); Primary Antibody; HRP-conjugated Secondary Antibody; Antibody Diluent Buffer; TMB One-Step Substrate Reagent; Stop Solution

## Target Species

Human

**Detection method** Absorbance (450 nm)

## Features & Benefits

A non-radioactive transcription factor assay with an ELISA format.

An easy, speedy, sensitive and high-throughput method to detect the activation of transcription factors.