

Stress and Apoptosis Antibody Sampler Kit

Cat# AK0269

Upon receipt, store at -20°C. Avoid freeze/thaw cycles.

PRODUCT DESCRIPTION

Cells respond to environmental or intracellular stresses through various mechanisms ranging from initiation of prosurvival strategies to activation of cell death pathways that remove damaged cells from the organism. Many of the proteins and cellular processes involved in normal signaling and survival pathways also play dual roles in cell death-promoting mechanisms. Apoptosis is a regulated cellular suicide mechanism characterized by nuclear condensation, cell shrinkage, membrane blebbing, and DNA fragmentation. Caspase-3 (CPP-32, Apoptain, Yama, SCA-1) is a critical executioner of apoptosis, as it is either partially or totally responsible for the proteolytic cleavage of many key proteins such as the nuclear enzyme poly (ADP-ribose) polymerase (PARP). PARP appears to be involved in DNA repair in response to environmental stress. This protein can be cleaved by many ICE-like caspases in vitro and is one of the main cleavage targets of caspase-3 in vivo. PARP helps cells to maintain their viability; cleavage of PARP facilitates cellular disassembly and serves as a marker of cells undergoing apoptosis. The p53 tumor suppressor protein plays a major role in cellular response to DNA damage and other genomic aberrations. Activation of p53 can lead to either cell cycle arrest and DNA repair or apoptosis. DNA damage induces phosphorylation of p53 at Ser15 and Ser20 and leads to a reduced interaction between p53 and its negative regulator, the oncoprotein MDM2. MDM2 inhibits p53 accumulation by targeting it for ubiquitination and proteasomal degradation. Stress-activated protein kinases (SAPK)/Jun amino-terminal kinases (JNK) are members of the MAPK family that are activated by a variety of environmental stresses, inflammatory cytokines, growth factors, and GPCR agonists. Stress signals are delivered to this cascade by small GTPases of the Rho family (Rac, Rho, cdc42). SAPK/JNK, when active as a dimer, can translocate to the nucleus and regulate transcription through its effects on c-Jun, ATF-2, and other transcription factors.

PRODUCT INCLUDES

Cat No.	Product name	Quantity	Applications	Reactivity	Host
A340239	Phospho-HSP27 (Ser82) Polyclonal Antibody	20µL	WB, IHC, ELISA	Human, Mouse, Rat	Rabbit
A340251	Phospho-JNK1/2/3 (Thr183/Y185) Polyclonal Antibody	20µL	WB, ELISA	Human, Mouse, Rat	Rabbit
A340193	Phospho-JUN/JUND (Ser73/100) Polyclonal Antibody	20µL	WB, IHC, ELISA	Human, Mouse, Rat	Rabbit

A340264	Phospho-P53 (Ser15) Polyclonal Antibody	20μL	WB, IHC, IF, IP, ELISA	Human, Rat	Rabbit
A340389	Cleaved-CASP3 p17 (D175) Polyclonal Antibody	20μL	WB, IHC, ELISA	Human, Mouse, Rat	Rabbit
A340398	Cleaved-PARP1 (D214) Polyclonal Antibody	20μL	WB, ELISA	Human, Mouse	Rabbit
A340303	Phospho-P38 (Thr180/Tyr182) Polyclonal Antibody	20μL	WB, IHC, ELISA	Human, Mouse, Rat	Rabbit
A1013s	Goat Anti-Rabbit IgG (H+L) (peroxidase/HRP conjugated)	120μL	WB, ELISA	Rabbit	Goat

PRODUCT USE LIMITATION

These products are intended for research use only.