Technical support: order@acebiolab.com
Phone: 886-3-2870051

Datasheet

Ver.1 Date : 20180222

PDGF Receptor Activation Antibody Sampler Kit

Cat# AK0217

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

PRODUCT DESCRIPTION

Platelet derived growth factor (PDGF) family proteins form dimers (PDGF AA, PDGF AB, PDGF BB, PDGF CC, and PDGF DD) that bind receptor tyrosine kinases PDGF receptor α (PDGFR α) and PDGF receptor β (PDGFR β) in a specific pattern. PDGFR β homodimers bind PDGF BB and DD homodimers and the PDGF AB heterodimer. Heteromeric receptor PDGF α/β binds PDGF B, C, and D homodimers and the PDGF AB heterodimer. Ligand binding induces PDGF receptor dimerization and autophosphorylation, followed by binding and activation of cytoplasmic SH2 domain-containing signal transduction molecules, such as GRB2, Src, GAP, PI3 kinase, PLC γ, and NCK. Activated PDGF receptors initiate signaling pathways that control cell growth, actin reorganization, migration, and differentiation. PDGFR β kinase-insert region residue Tyr751 forms the PI3 kinase docking site, and phosphorylation of PDGFR β at this site inhibits the association between the SH2 domain of the PI3 kinase p85 subunit and PDGFR β. SHP-2 (PTPN11) is a nonreceptor protein tyrosine phosphatase that participates in signaling pathways that control cell growth, differentiation, migration, and death. Activation of SHP-2 and its association with Gab1 is critical for sustained Erk activation downstream of growth factor receptors and cytokines. Phosphorylation of SHP-2 at Tyr542 and Tyr580 in response to growth factor receptor activation is thought to relieve basal inhibition and stimulate SHP-2 tyrosine phosphatase activity. Insulin and various growth/survival factors activate Akt, a kinase that acts in a wortmannin-sensitive pathway involving PI3 kinase to help control survival and apoptosis. Akt is activated by phospholipid binding and activation loop phosphorylation at Thr308 by PDK1 and by phosphorylation within the carboxy terminus at Ser473. The p44/42 MAPK (Erk1/2) signaling pathway is activated in response to extracellular stimuli including mitogens, growth factors, and cytokines. Research suggests that this pathway is an important target in cancer diagnosis and treatment. External stim

PRODUCT INCLUDES

Cat No.	Product name	Quantity	Applications	Reactivity	Host
A340628	PDGFRB Polyclonal Antibody	20µL	WB, IHC, IF, ELISA	Human, Mouse, Rat	Rabbit
A340668	SH-PTP2 Polyclonal Antibody	20µL	WB, IHC, ELISA	Human, Mouse, Rat, Monkey	Rabbit

A340325	Phospho-SH-PTP2 (Tyr542) Polyclonal Antibody	20μL	WB, IHC, ELISA	Human, Mouse, Rat	Rabbit
A340365	Phospho-AKT1 (Ser473) Polyclonal Antibody	20μL	WB, IHC, IF, ELISA	Human, Mouse, Rat	Rabbit
A340420	Pan-Akt Polyclonal Antibody	20μL	WB, IHC, ELISA	Human, Mouse, Rat	Rabbit
A340511	ERK 1/2 Polyclonal Antibody	20μL	WB, IF, ELISA	Human, Mouse, Rat	Rabbit
A340370	Phospho-ERK 1/2 (Thr202/Tyr204) 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.