BACKGROUND

Activation of protein kinase C (PKC) in platelets results in immediate phosphorylation of Pleckstrin (previously called 40K or P47), the major PKC substrate in platelets. Pleckstrin contains a Ca\(^{2+}\)-binding “EF-hand” structure and PKC phosphorylation sites at Ser 113 and Ser 117. The N- and C-termini of Pleckstrin contain two Pleckstrin homology domains (PH), which mediate protein-protein and protein-lipid interactions. Pleckstrin is highly expressed in human neutrophils. Pleckstrin is rapidly phosphorylated following treatment of neutrophils in response to inflammatory stimuli, probably by non-conventional PKC isoforms δ or ζ, which are expressed in human neutrophils. Phosphorylation by non-conventional PKC isoforms induces a conformational change in Pleckstrin that promotes its interaction with membranes and/or with the cytoskeleton, serving to target proteins or lipids recognized by PH domains to sites where they can contribute to the microbicidal response.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: PLEK (human) mapping to 2p14; Plek (mouse) mapping to 11 A2.

SOURCE

Pleckstrin (25) is a mouse monoclonal antibody raised against amino acids 2-16 of Pleckstrin of human origin.

PRODUCT

Each vial contains 50 µg IgG\(_1\) in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Pleckstrin (25) is recommended for detection of Pleckstrin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000); not recommended for immunoprecipitation.

Suitable for use as control antibody for Pleckstrin siRNA (h): sc-106419, Pleckstrin siRNA (m): sc-152303, Pleckstrin shRNA Plasmid (h): sc-106419-SH, Pleckstrin shRNA Plasmid (m): sc-152303-SH, Pleckstrin shRNA (h) Lentiviral Particles: sc-106419-V and Pleckstrin shRNA (m) Lentiviral Particles: sc-152303-V.

Molecular Weight of Pleckstrin: 40 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or HEL whole cell lysate.

DATA

SELECT PRODUCT CITATIONS


STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures. Not for resale.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.