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FGR Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP7707a

Specification

FGR Antibody (N-term) Blocking Peptide - Product Information

Primary Accession P09769

FGR Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 2268

Other Names
Tyrosine-protein kinase Fgr, Gardner-Rasheed feline sarcoma viral (v-fgr) oncogene homolog, Proto-oncogene c-Fgr, p55-Fgr, p58-Fgr, p58c-Fgr, FGR, SRC2

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP7707a was selected from the N-term region of human FGR . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

FGR Antibody (N-term) Blocking Peptide - Protein Information

Name FGR

Synonyms SRC2

Function
Non-receptor tyrosine-protein kinase that transmits signals from cell surface receptors devoid of kinase activity and contributes to the regulation of immune responses, including neutrophil, monocyte, macrophage and mast cell functions, cytoskeleton remodeling in response to extracellular stimuli, phagocytosis, cell adhesion and migration. Promotes mast cell degranulation, release of inflammatory cytokines and IgE-mediated anaphylaxis. Acts downstream of receptors that bind the Fc region of immunoglobulins, such as MS4A2/FCER1B, FCGR2A and/or FCGR2B. Acts downstream of ITGB1 and ITGB2, and regulates actin cytoskeleton reorganization, cell spreading and adhesion. Depending on the context, activates or inhibits cellular responses. Functions as a negative regulator of ITGB2 signaling, phagocytosis and SYK activity in monocytes. Required for

normal ITGB1 and ITGB2 signaling, normal cell spreading and adhesion in neutrophils and macrophages. Functions as a positive regulator of cell migration and regulates cytoskeleton reorganization via RAC1 activation. Phosphorylates SYK (in vitro) and promotes SYK-dependent activation of AKT1 and MAP kinase signaling. Phosphorylates PLD2 in antigen-stimulated mast cells, leading to PLD2 activation and the production of the signaling molecules lysophosphatidic acid and diacylglycerol. Promotes activation of PIK3R1. Phosphorylates FASLG, and thereby regulates its ubiquitination and subsequent internalization. Phosphorylates ABL1. Promotes phosphorylation of CBL, CTTN, PIK3R1, PTK2/FAK1, PTK2B/PYK2 and VAV2. Phosphorylates HCLS1 that has already been phosphorylated by SYK, but not unphosphorylated HCLS1. Together with CLNK, it acts as a negative regulator of natural killer cell-activating receptors and inhibits interferon-gamma production (By similarity).

Cellular Location
Cell membrane; Lipid-anchor; Cytoplasmic side. Cell membrane; Peripheral membrane protein; Cytoplasmic side. Cell projection, ruffle membrane. Cytoplasm, cytosol. Cytoplasm, cytoskeleton. Mitochondrion inner membrane. Mitochondrion intermembrane space. Note=Detected in mitochondrial intermembrane space and at inner membranes (By similarity). Colocalizes with actin fibers at membrane ruffles. Detected at plasma membrane lipid rafts

Tissue Location
Detected in neutrophils, monocytes and natural killer cells (at protein level). Detected in monocytes and large lymphocytes.

FGR Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

FGR Antibody (N-term) Blocking Peptide - Images

FGR Antibody (N-term) Blocking Peptide - Background

FGR is a member of the Src family of protein tyrosine kinases (PTKs). This protein contains N-terminal sites for myristylation and palmitylation, a PTK domain, and SH2 and SH3 domains which are involved in mediating protein-protein interactions with phosphotyrosine-containing and proline-rich motifs, respectively. It localizes to plasma membrane ruffles, and functions as a negative regulator of cell migration and adhesion triggered by the beta-2 integrin signal transduction pathway. Infection with Epstein-Barr virus results in the overexpression of this protein.

FGR Antibody (N-term) Blocking Peptide - References

Carriero, M.V., et al., Biol. Chem. 383(1):107-113 (2002).Katamine, S., et al., Mol. Cell. Biol. 8(1):259-266 (1988).Nishizawa, M., et al., Mol. Cell. Biol. 6(2):511-517 (1986).Cheah, M.S., et al., Nature 319(6050):238-240 (1986).Tronick, S.R., et al., Proc. Natl. Acad. Sci. U.S.A. 82(19):6595-6599 (1985).