

FGR Rabbit pAb

Catalog # AP100113

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	P09769
Other Accession	P09769
Predicted	Rat, Pig, Human, Mouse, Rabbit, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	59479
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human FGR/SRC2
Epitope Specificity	251-350/529
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the protein kinase superfamily. Tyr protein kinase family. SRC subfamily. Contains 1 protein kinase domain. Contains 1 SH2 domain. Contains 1 SH3 domain.
SUBUNIT	Interacts with ITGB1, ITGB2, MS4A2/FCER1B, FCER1G, FCGR2A and/or FCGR2B. Interacts (via SH2 domain) with SYK (tyrosine phosphorylated). Interacts (via SH2 domain) with FLT3 (tyrosine phosphorylated). Interacts with PTK2/FAK1. Interacts (via SH2 domain) with HCLS1 (tyrosine phosphorylated by SYK). Interacts with SIRPA and PTPNS1. Interacts (not phosphorylated on tyrosine residues) with CBL; FGR tyrosine phosphorylation promotes dissociation. Interacts with PIK3R1 and FASLG (By similarity).
Post-translational modifications	Ubiquitinated. Becomes ubiquitinated in response to ITGB2 signaling; this does not lead to degradation. Phosphorylated. Autophosphorylated on tyrosine residues. Becomes phosphorylated in response to FCGR2A and/or FCGR2B engagement, cell adhesion and signaling by ITGB2. Prior phosphorylation at Tyr-523 by SRC inhibits ulterior autophosphorylation at Tyr-412.
DISEASE	Note=Mutations that cause aberrant kinase activation can confer oncogene activity and promote aberrant cell proliferation.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Src is the human homolog of the v-Src gene of the rous sarcoma virus, also designated avian sarcoma virus or ASV. Src was the first proto-oncogenic non-receptor tyrosine kinase characterized in human. The Src family, which has common structural motifs, is composed of nine members in vertebrates, including Src, Yes, Fgr, Frk, Fyn, Lyn, Hck, Lck and Blk. Src-family kinases transduce signals that are involved in the control of a variety of cellular processes, including proliferation, differentiation, motility and adhesion. Src-family ki-nases contain an amino-terminal cell membrane anchor followed by an SH3 domain and an SH2 domain, which are involved in modular association and activation, respectively. Src-family kinases, which are normally maintained in an inactive state and can be activated transiently during cellular events such as mitosis. Different subcellular localizations of

Src-family kinases may be important for the regulation of specific cellular processes such as mitogenesis, cytoskeletal organization and membrane trafficking. c-Fgr is a human non-receptor tyrosine kinase family member that was discovered by using a probe toward the v-Fgr portion of the cell-derived domain of Gardner-Rasheed feline sarcoma virus. The human c-Fgr gene encodes a 529 amino acid protein.

Additional Information

Gene ID	2268
Other Names	SRC2; c-fgr; c-src2; p55-Fgr; p55c-fgr; p58-Fgr; p58c-fgr; Ali18; Mhdaali18; FGR_HUMAN; FGR; Gardner-Rasheed feline sarcoma viral (v-fgr) oncogene homolog; Proto-oncogene c-Fgr; 2.7.10.2; FGR_MOUSE; FGR proto-oncogene, Src family tyrosine kinase; v-fgr feline Gardner-Rasheed sarcoma viral oncogene homolog; feline Gardner-Rasheed sarcoma viral oncogene homolog
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.