10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

FGR Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1259a

Product Information

Application	WB, IHC, E
Primary Accession	P09769
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Clone Names	6G2
Isotype	IgG1
Calculated MW	59479
Description	FGR: Gardner-Rasheed feline sarcoma viral (v-fgr) oncogene homolog, also known as SRC2; c-fgr; c-src2; FLJ43153; MGC75096; p55c-fgr; p58c-fgr. It is a member of the Src family of protein tyrosine kinases (PTKs). The encoded 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. The protein 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 gene. Multiple alternatively spliced variants, encoding the same protein, have been identified.
Immunogen	Purified recombinant fragment of human FGR expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	2268
Other Names	Tyrosine-protein kinase Fgr, 2.7.10.2, Gardner-Rasheed feline sarcoma viral (v-fgr) oncogene homolog, Proto-oncogene c-Fgr, p55-Fgr, p58-Fgr, p58c-Fgr, FGR, SRC2
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 E~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	FGR Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

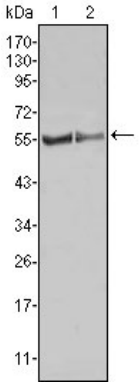
Name	FGR
Synonyms	SRC2
Function	Non-receptor tyrosine-protein kinase that transmits signals from cell surface receptors devoid of kinase activity and contributes to the regulation of immune responses, including neutrophil, monocyte, macrophage and mast cell functions, cytoskeleton remodeling in response 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.

References

1. Immunity. 2005 Feb;22(2):235-46. 2. Biochemistry. 2007 Oct 2;46(39):11023-32.

Images

Figure 1: Western blot analysis using FGR mouse mAb against HL60 (1) Raw264.7 (2) cell lysate.



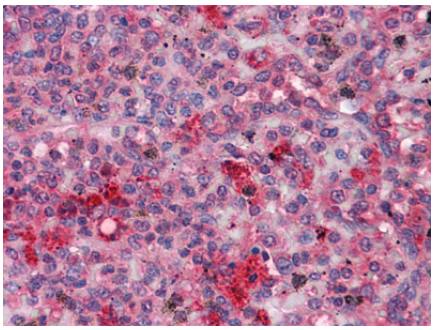


Figure 2: Immunohistochemical analysis of paraffin-embedded human Spleen tissues using FGR mouse mAb

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