abcam

Product datasheet

Recombinant human FGR protein ab60854

5 Images

Description

Product name	Recombinant human FGR protein
Expression system	Baculovirus infected Sf9 cells
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human

Specifications

Our Abpromise guarantee covers the use of **ab60854** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	SDS-PAGE Functional Studies
Form	Liquid
Additional notes	ab204877 (Poly (4:1 Glu, Tyr) peptide) can be utilized as a substrate for assessing kinase activity

Preparation and Storage

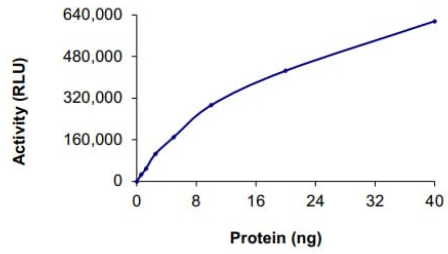
Stability and Storage	Shipped on dry ice. Upon delivery aliquot and store at -80ºC. Avoid freeze / thaw cycles. pH: 7.50 Constituents: 0.0038% EGTA, 0.00174% PMSF, 0.00385% DTT, 0.79% Tris HCl, 0.00292% EDTA, 25% Glycerol (glycerin, glycerine), 0.87% Sodium chloride This product is an active protein and may elicit a biological response in vivo, handle with caution.

General Info

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,

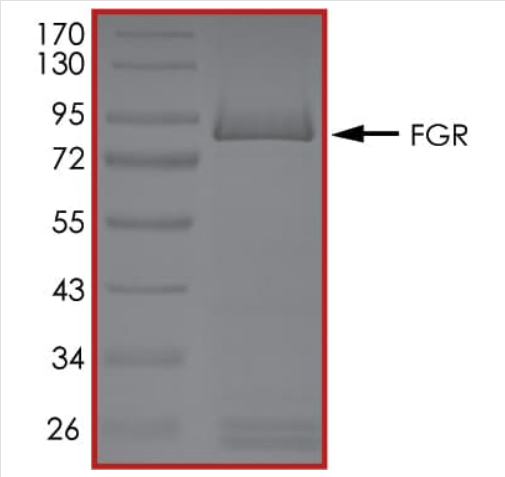
	release of inflammatory cytokines and IgE-mediated anaphylaxis. Acts downstream of receptors that bind the Fc region of immunoglobulins, such as MS4A2/FCER1B, FCGR2A and/or FCGR2B. Acts downstream of ITGB1 and ITGB2, and regulates actin cytoskeleton reorganization, cell spreading and adhesion. Depending on the context, activates or inhibits cellular responses. Functions as 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 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.
Tissue specificity	Detected in neutrophils, monocytes and natural killer cells (at protein level). Detected in monocytes and large lymphocytes.
Involvement in disease	Mutations that cause aberrant kinase activation can confer oncogene activity and promote aberrant cell proliferation.
Sequence similarities	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.
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.
Cellular localization	Cell membrane. Cell membrane. Cell projection > ruffle membrane. Cytoplasm > cytosol. Cytoplasm > cytoskeleton. Mitochondrion inner membrane. Mitochondrion intermembrane space. Detected in mitochondrial intermembrane space and at inner membranes (By similarity). Colocalizes with actin fibers at membrane ruffles. Detected at plasma membrane lipid rafts.

Images



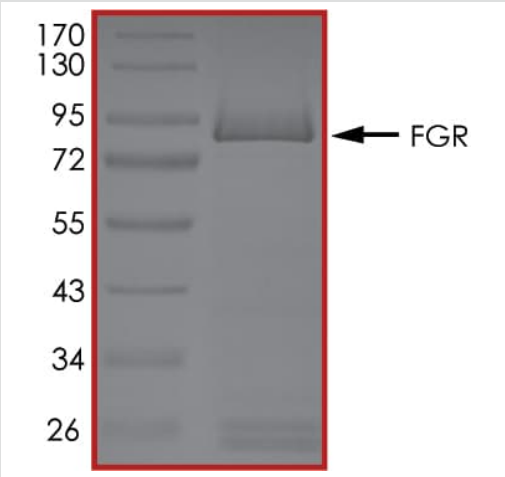
Functional Studies - Recombinant human FGR protein (ab60854)

The specific activity of FGR (ab60854) was determined to be 155 nmol/min/mg as per activity assay protocol



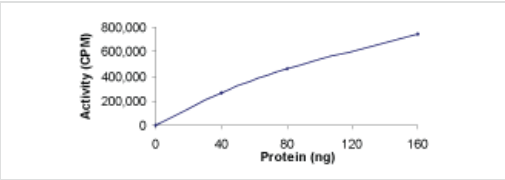
SDS-PAGE - Recombinant human FGR protein (ab60854)

SDS PAGE analysis of ab60854



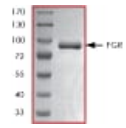
SDS-PAGE - Recombinant human FGR protein (ab60854)

SDS PAGE analysis of ab60854



Functional Studies - Recombinant human FGR protein (ab60854)

Sample Kinase Activity Plot.



SDS-PAGE - Recombinant human FGR protein (ab60854)

ab60854 on SDS-PAGE, MW ~86 kDa.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit https://www.abcam.com/abpromise or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors