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

Anti-FER Antibody
Catalog # ABO11189

Specification

Anti-FER Antibody - Product Information

Application	**WB, IHC**
Primary Accession	P16591
Host	**Rabbit**
Reactivity	**Human, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Tyrosine-protein kinase Fer(FER) detection. Tested with WB, IHC-P in Human;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-FER Antibody - Additional Information

Gene ID 2241

Other Names
Tyrosine-protein kinase Fer, 2.7.10.2, Feline encephalitis virus-related kinase FER, Fujinami poultry sarcoma/Feline sarcoma-related protein Fer, Proto-oncogene c-Fer, Tyrosine kinase 3, p94-Fer, FER, TYK3

Calculated MW
94638 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Rat, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Rat

Subcellular Localization
Cytoplasm. Cytoplasm, cytoskeleton. Cell membrane; Peripheral membrane protein; Cytoplasmic side. Cell projection. Cell junction. Membrane; Peripheral membrane protein; Cytoplasmic side. Nucleus. Cytoplasm, cell cortex. Associated with the chromatin. Detected on microtubules in polarized and motile vascular endothelial cells. Colocalizes with F-actin at the cell cortex. Colocalizes with PECAM1 and CTNND1 at nascent cell- cell contacts.

Tissue Specificity
Isoform 1 is detected in normal colon and in fibroblasts (at protein level). Isoform 3 is detected in normal testis, in colon carcinoma-derived metastases in lung, liver and ovary, and in colon carcinoma and hepato carcinoma cell lines (at protein level). Isoform 3 is not detected in normal colon or in normal fibroblasts (at protein level). Widely expressed. .

Protein Name
Tyrosine-protein kinase Fer

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence in the middle region of human FER(521-536aa FSNIPQLIDHHYTTKQ), different from the related rat and mouse sequences by two amino acids.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage **At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Sequence Similarities
Belongs to the protein kinase superfamily. Tyr protein kinase family. Fes/fps subfamily.

Anti-FER Antibody - Protein Information

Name FER

Synonyms TYK3

Function
Tyrosine-protein kinase that acts downstream of cell surface receptors for growth factors and plays a role in the regulation of the actin cytoskeleton, microtubule assembly, lamellipodia formation, cell adhesion, cell migration and chemotaxis. Acts downstream of EGFR, KIT, PDGFRA and PDGFRB. Acts downstream of EGFR to promote activation of NF- kappa-B and cell proliferation. May play a role in the regulation of the mitotic cell cycle. Plays a role in the insulin receptor signaling pathway and in activation of phosphatidylinositol 3-kinase. Acts downstream of the activated FCER1 receptor and plays a role in FCER1 (high affinity immunoglobulin epsilon receptor)-mediated signaling in mast cells. Plays a role in the regulation of mast cell degranulation. Plays a role in leukocyte recruitment and diapedesis in response to bacterial lipopolysaccharide (LPS). Plays a role in synapse organization, trafficking of synaptic vesicles, the generation of excitatory postsynaptic currents and neuron-neuron synaptic transmission. Plays a role in neuronal cell death after brain damage. Phosphorylates CTTN, CTNND1, PTK2/FAK1, GAB1, PECAM1 and PTPN11. May phosphorylate JUP and PTPN1. Can phosphorylate STAT3, but the biological relevance of this depends on cell type and stimulus.

Cellular Location
Cytoplasm. Cytoplasm, cytoskeleton. Cell membrane; Peripheral membrane protein; Cytoplasmic side. Cell projection. Cell junction. Membrane; Peripheral membrane protein; Cytoplasmic side. Nucleus. Cytoplasm, cell cortex. Note=Associated with the chromatin. Detected on microtubules in polarized and motile vascular endothelial cells. Colocalizes with F-actin at the cell cortex. Colocalizes with PECAM1 and CTNND1 at nascent cell-cell contacts

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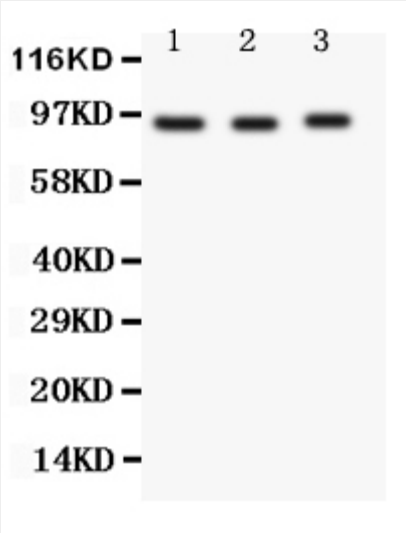
Anti-FER Antibody - Protocols

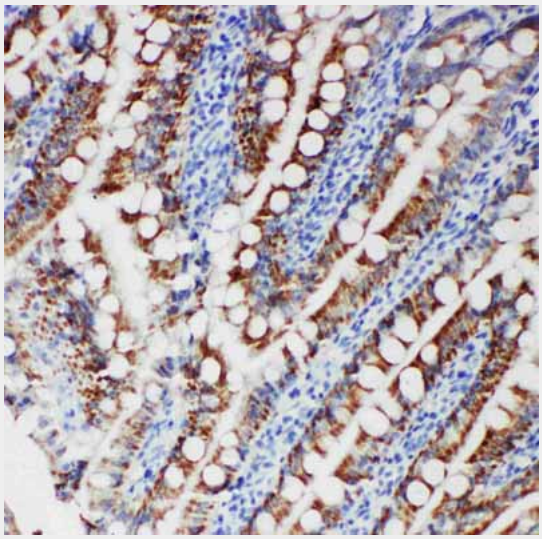
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-FER Antibody - Images



Anti-FER antibody, ABO11189, Western blottingAll lanes: Anti FER (ABO11189) at 0.5ug/mlLane 1: HELA Whole Cell Lysate at 40ugLane 2: Rat Testis Tissue Lysate at 50ugLane 3: Rat Ovary Tissue Lysate at 50ugPredicted bind size: 95KDObserved bind size: 95KD



Anti-FER antibody, ABO11189, IHC(P)IHC(P): Human Intestinal Cancer Tissue

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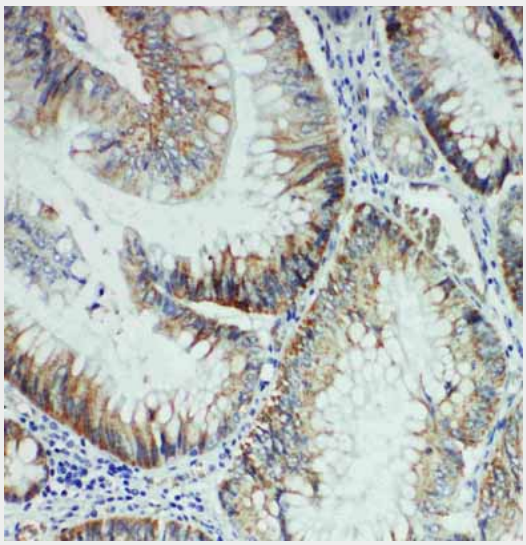

Anti-FER antibody, ABO11189, IHC(P)IHC(P): Rat Intestine Tissue

Anti-FER Antibody - Background

FER(FPS/FES-Related tyrosine kinase) also known as TYK3, is an enzyme that in humans is encoded by the FER gene. Fer protein is a member of the FPS/FES family of nontransmembrane receptor tyrosine kinases. By in situ hybridization, Morris et al.(1990) concluded that the FER gene is located at 5q21-q22. Treatment of cells with JMP resulted in the release of FER from the cadherin complex and its accumulation in the integrin complex. The accumulation of FER in the integrin complex and the inhibitory effects of JMP could be reversed with a peptide that mimics the first coiled-coil domain of FER. The results suggested that FER mediates crosstalk between CDH2 and ITGB1. In Fer mutant mice, leukocyte emigration was exaggerated in response to LPS without altering vascular permeability, suggesting that FER has a role in regulating innate immunity.