

#### DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human PIKFyve in direct ELISAs and Western blots.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human PIKFyve Lys215-Lys361 Accession # Q9Y2I7
<b>Conjugate</b>	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 nm
<b>Formulation</b>	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

#### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

**Western Blot** Optimal dilution of this antibody should be experimentally determined.

#### PREPARATION AND STORAGE

**Shipping** The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage** Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

#### BACKGROUND

PIKFyve (Phosphoinositide Kinase for five position containing a fyve finger (FAB1/YOTB/Vac1/EEA1) domain; also phosphatidylinositol 3-phosphate 5-kinase type III and Type III PIP kinase) is a 230-260 kDa cytoplasmic and endocytic member of an ancient family of phosphatidylinositol-3,5 biphosphate (PI[3,5]P2 synthesizing enzymes. It is associated with endosomes, particularly the microdomains of early endosomes that are EEA1-deficient. PIKFyve binds to membrane-embedded phosphatidylinositol and initially converts PI3P into PI(3,5)P2, which is then converted into PI5P. In conjunction with ArPIKFyve and Sac3, its actions are involved in the normal transport, fusion, and membrane export of endosomes. Notably, PIKFyve also appears to act as a protein kinase, apparently controlling its own activity through autophosphorylation. Human PIKFyve is 2098 amino acids (aa) in length. It contains one FYVE PI3P-binding zinc-finger domain (aa 154-219), a DEP domain (aa 365-440) and a C-terminal PIP kinase region (aa 1172-2085). There are no less than 29 utilized Ser/Thr phosphorylation sites, plus two utilized Tyr phosphorylation sites. Three potential isoform variants are reported, all which possess a three aa substitution for aa 546-2098. Two of these three also demonstrate a deletion of aa 108-204, and a nine aa substitution for aa 109-203, respectively. Over aa 215-361, human and mouse share 95% aa sequence identity.

#### PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.