

DEF6/IBP Rabbit pAb

Catalog # AP97300

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9H4E7
Other Accession	Q9H4E7
Reactivity	Rat
Predicted	Human, Mouse, Rabbit
Host	Rabbit
Clonality	Polyclonal
Calculated MW	73910
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human DEF6/IBP
Epitope Specificity	51-150/631
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	Preservative: 0.02% Proclin300, Constituents: 1% BSA, 0.01M PBS, pH7.4.
SIMILARITY	Contains 1 PH domain.
SUBUNIT	Interacts with ZAP70 (By similarity). Interacts with IRF4, activated RAC1 and F-actin. Both the phosphorylated and non-phosphorylated forms bind phosphatidylinositol 3,4,5-trisphosphate (PtdInsP3).
Post-translational modifications	Tyrosine-phosphorylated by tyrosine-protein kinase LCK in response to T-cell activation.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	DEF6 is a 631 amino acid protein that is widely expressed in T and B cells of the immune system. Localized to the nucleus, cytoplasm and cell membrane, DEF6 is a phosphatidylinositol 3,4,5-trisphosphate-dependent guanine nucleotide exchange factor (GEF) that functions to activate Rho GTPases such as Rac 1, Cdc42 and Rho A. Via its ability to activate various Rho GTPases, DEF6 can regulate cell shape, movement and polarity and, through its interaction with T helper cells, DEF6 can also help mediate the immune response. DEF6 contains one PH (pleckstrin homology) domain which is required for binding to phosphatidylinositol 3,4,5-trisphosphate and subsequent recruitment to the plasma membrane.

Additional Information

Gene ID	50619
Other Names	IBP; IMD87; SLAT; SWAP70L; 2410003F05Rik; 6430538D02Rik; Slat2; Slat6; DEFI6_HUMAN; DEF6; DEF-6; IRF4-binding protein; DEFI6_MOUSE; SWAP-70-like adapter of T-cells; DEF6 guanine nucleotide exchange factor; differentially expressed in FDCP (mouse homolog) 6; differentially expressed in FDCP 6 homolog (mouse); SWAP-70-like adaptor protein of T cells

Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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	DEF6
Synonyms	IBP
Function	Phosphatidylinositol 3,4,5-trisphosphate-dependent guanine nucleotide exchange factor (GEF) which plays a role in the activation of Rho GTPases RAC1, RhoA and CDC42 (PubMed: 12651066 , PubMed: 15023524). Can regulate cell morphology in cooperation with activated RAC1 (By similarity). Involved in immune homeostasis by ensuring proper trafficking and availability of T-cell regulator CTLA-4 at T-cell surface (PubMed: 31308374). Plays a role in Th2 (T helper cells) development and/or activation, perhaps by interfering with ZAP70 signaling (By similarity).
Cellular Location	Cytoplasm. Cell membrane Nucleus. Cytoplasm, cytoskeleton. Cytoplasm, perinuclear region. Cell projection, filopodium. Note=Recruited to the plasma membrane upon binding phosphatidylinositol 3,4,5-trisphosphate (PubMed:15023524). Binds to actin filaments (PubMed:15023524)
Tissue Location	Broadly expressed in the immune system. Highly expressed in T cells (PubMed:31308374).

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