



Rabbit Anti-FGD2 antibody

SL16078R

Product Name:	FGD2
Chinese Name:	FGD2蛋白抗体
Alias:	Fgd2; FGD2_HUMAN; FYVE; RhoGEF and PH domain-containing protein 2; ZFYVE4; Zinc finger FYVE domain-containing protein 4.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Pig,Cow,Sheep,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	75kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human FGD2:501-600/655
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. 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.
PubMed:	PubMed
Product Detail:	Fgd1 gene mutations result in faciogenital dysplasia (FGDY, Aarskog syndrome),an X-linked developmental disorder that adversely affects the formation of multiple skeletal structures (1). FGD1 maps to human chromosome Xp11.21 and shares a high degree of sequence identity with the FGD2 (6p21.2) and the FGD3 (9q22) proteins (1-4). FGD1 encodes a guanine nucleotide exchange factor that specifically activates the Rho GTPase Cdc42 (1,5). FGD2 is present in several diverse tissues during embryogenesis,

suggesting a role in embryonic development (2). FGD3 stimulates fibroblasts to form filopodia, which are actin microspikes formed upon the stimulation of Cdc42 (1). All FGD family members contain equivalent signaling domains and a conserved structural organization, which strongly suggests that these signaling domains form a canonical core structure for members of the FGD family of RhoGEF proteins (2). These proteins control essential signals required during embryonic development (6,7).

Function:

Activates CDC42, a member of the Ras-like family of Rho-and Rac proteins, by exchanging bound GDP for free GTP. Activates JNK1 via CDC42 but not RAC1. Binds to phosphatidylinositol 4,5-bisphosphate, phosphatidylinositol 3,4,5-trisphosphate, phosphatidylinositol 5-monophosphate, phosphatidylinositol 4-monophosphate and phosphatidylinositol 3-monophosphate.

Subcellular Location:

Cytoplasm > cytoskeleton. Cytoplasm. Nucleus. Early endosome. Early endosome membrane. Cell projection > ruffle membrane. Recruitment to the endosome and ruffle membrane requires the presence of phosphoinositides.

Similarity:

Contains 1 DH (DBL-homology) domain.
Contains 1 FYVE-type zinc finger.
Contains 2 PH domains.

SWISS:

Q7Z6J4

Gene ID:

221472

Database links:

[Entrez Gene: 221472](#) Human

[Omim: 605091](#) Human

[SwissProt: Q7Z6J4](#) Human

[Unigene: 509664](#) Human

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.