

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human and mouse DAPP1 in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human DAPP1 Gly2-Ser163 Accession # Q9UN19
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	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

DAPP1 (Dual Adaptor for Phosphotyrosine and 3-Phosphoinositides 1; also Bam32 and PHISH) is a 31-32 kDa member of Ig-superfamily of proteins. It shows restricted expression, being found in mast cells, dendritic cells, and germinal center B cells. With respect to B cells, and upon B cell receptor engagement, PI3-kinase is activated, resulting in the generation of membrane-embedded PI(3,4)P2. This product serves as a ligand for cytosolic DAPP1, resulting in its immobilization at the cell membrane. Here, it is phosphorylated on Tyr139, directly regulating HPK1 (hematopoietic progenitor kinase 1) activity, and indirectly regulation HPK1 downstream targets ERK and JNK. Functionally, DAPP1 plays a role in BCR internalization, antibody isotype switching, antigen processing and presentation, and B cell survival. Human DAPP1 is 280 amino acids (aa) in length. It contains one SH2 domain (aa 35-129), a utilized phosphorylation site at Tyr139 and a C-terminal PH domain (aa 164-259). When phosphorylated, the observed MW of DAPP1 may be increased by 2-4 kDa in SDS-PAGE. There are four potential alternative splice variants. Two contain a five and 22 aa substitution for aa 259-280, respectively, while a third possesses a 14 aa substitution for aa 1-229, and a fourth shows deletions of aa 35-75 and aa 180-200 coupled to a three aa substitution for aa 249-280. Over aa 1-163, human DAPP1 shares 91% aa sequence identity with mouse DAPP1.

PRODUCT SPECIFIC NOTICES

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