

Datasheet for ABIN967523
anti-PIK3R1 antibody



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Overview

Quantity:	0.1 mg
Target:	PIK3R1 (PI3K p85a)
Reactivity:	Human, Cow, Monkey
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This PIK3R1 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunoprecipitation (IP)

Product Details

Brand:	BD Pharmingen™
Immunogen:	Recombinant cow p85alpha
Clone:	U15
Isotype:	IgG1
Cross-Reactivity:	Human, Monkey
Characteristics:	<ol style="list-style-type: none">1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.2. Please refer to us for technical protocols.3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	PIK3R1 (PI3K p85a)
Alternative Name:	pi 3-Kinase p85 alpha (PI3K p85a Products)
Background:	<p>Phosphatidylinositol 3-kinase (PI3-kinase) is a universal enzyme associated with receptor signaling pathways. It generates second messenger phospholipids by phosphorylating the D-3 position of inositol phospholipids including phosphatidylinositol (PI), PI-4-phosphate, and PI-4, 5-biphosphate. The enzyme exists as a heterodimer composed of regulatory 85 kDa (p85) and catalytic 110 kDa (p110) subunits. The p85 subunit contains two SH2 (src-homology 2) domains and an SH3 domain. The catalytic activity of the p110 subunit is stimulated when the p85 regulatory subunit binds, through its SH2 domains, to activated receptor and non-receptor tyrosine kinases. Two p85 isoforms have been described, p85a and p85β. Both isoforms bind to activated receptors and each may be responsible for mediating a subset of PI3-kinase interactions. Clone U15 recognizes the p85 regulatory subunit of PI3 kinase (p85alpha). It reacts with human, monkey, and cow PI3 kinase. It does not cross-react with mouse or rat PI3 kinase. Recombinant cow p85alpha was used as immunogen. The epitope has been mapped to the inter-SH2 spacer region of p85alpha. The antibody will block lipids binding to this region.</p>
Molecular Weight:	85 kDa
Pathways:	TCR Signaling , Response to Growth Hormone Stimulus , Regulation of Muscle Cell Differentiation , Skeletal Muscle Fiber Development , Hepatitis C , Protein targeting to Nucleus , VEGF Signaling , BCR Signaling , Warburg Effect

Application Details

Application Notes:	Clone U15 was originally characterized by ELISA, immunoprecipitation, and western blot analysis. Applications include immunoprecipitation (1-2 µg/1x10 ⁶ cells) and western blot analysis (1-2 µg/ml). In immunoprecipitation, U15 can bring down an active kinase. Jurkat human T cells (ATCC TIB-152) are suggested as a positive control.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	0.5 mg/mL
Buffer:	Aqueous buffered solution containing ≤0.09 % sodium azide.
Preservative:	Sodium azide

Handling

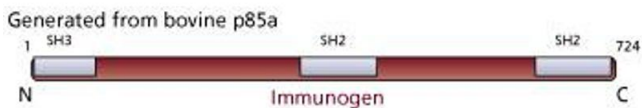
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	Store undiluted at 4°C.

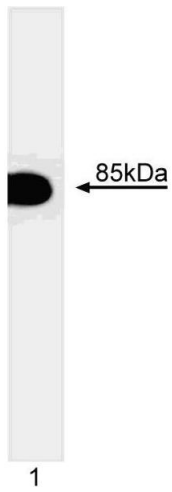
Publications

Product cited in:	Shoelson, Sivaraja, Williams, Hu, Schlessinger, Weiss: "Specific phosphopeptide binding regulates a conformational change in the PI 3-kinase SH2 domain associated with enzyme activation." in: The EMBO journal , Vol. 12, Issue 2, pp. 795-802, (1993) (PubMed).
	Whitman, Downes, Keeler, Keller, Cantley: "Type I phosphatidylinositol kinase makes a novel inositol phospholipid, phosphatidylinositol-3-phosphate." in: Nature , Vol. 332, Issue 6165, pp. 644-6, (1988) (PubMed).

Images

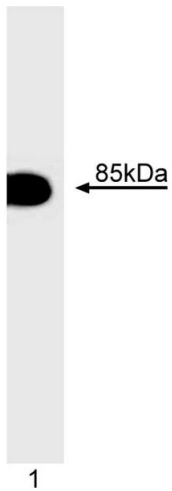
Image 1.





Western Blotting

Image 2. Western blot analysis of the p85 regulatory subunit of PI3 kinase (p85alpha). Lysates from Jurkat human T cells were probed with anti-PI3 Kinase (clone U15, ABIN967523). The antibody identifies p85alpha as an 85 kDa band.



Western Blotting

Image 3.