

1P-345-C100

Monoclonal Antibody to SIT Phycoerythrin (PE) conjugated (0.1 mg)

Clone:	SIT-01
Isotype:	Mouse IgG1
Specificity:	The antibody SIT-01 reacts with SHP2-interacting transmembrane adaptor protein (SIT) expressed exclusively in lymphoid organs. It weakly crossreacts with mouse SIT.
Regulatory Status:	RUO
Immunogen:	Bacterially produced recombinant intracellular fragment of human SIT.
Species Reactivity:	Human
Preparation:	The purified antibody is conjugated with R-Phycoerythrin (PE) under optimum conditions. The conjugate is purified by size-exclusion chromatography.
Concentration:	0.1 mg/ml
Storage Buffer:	The reagent is provided in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide.
Storage / Stability:	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.
Usage:	The reagent is designed for Flow Cytometry analysis (see application note on www.exbio.cz). Suggested working dilution is 1:50. Indicated dilution is recommended starting point for use of this product. Working concentrations should be determined by the investigator.
Expiration:	See vial label
Lot Number:	See vial label
Background:	SIT (SHP2-interacting transmembrane adaptor protein) is expressed exclusively in lymphoid organs and acts either as a positive or as a negative regulatory element in T cell activation and in T cell development. Binding to Grb2 plays a pivotal role in signal transduction. Hubener et al. (2001) determined that the SIT gene contains 5 exons and spans 1.8 kb of genomic DNA. The SIT promoter demonstrated strong transcriptional activity and potential binding sites for both ubiquitous and lymphoid-specific transcription factors.

For laboratory research only, not for drug, diagnostic or other use.



Antibodies

- References:**
- *Simeoni L, Posevitz V, Kolsch U, Meinert I, Bruyns E, Pfeffer K, Reinhold D, Schraven B: The transmembrane adapter protein SIT regulates thymic development and peripheral T-cell functions. *Mol Cell Biol.* 2005 Sep;25(17):7557-68.
 - *Hubener C, Mincheva A, Lichter P, Schraven B, Bruyns E: Complete sequence, genomic organization, and chromosomal localization of the human gene encoding the SHP2-interacting transmembrane adaptor protein (SIT). *Immunogenetics.* 2001 May-Jun;53(4):337-41.
 - *Marie-Cardine A, Kirchgessner H, Bruyns E, Shevchenko A, Mann M, Autschbach F, Ratnofsky S, Meuer S, Schraven B: SHP2-interacting transmembrane adaptor protein (SIT), a novel disulfide-linked dimer regulating human T cell activation. *J Exp Med.* 1999 Apr 19;189(8):1181-94.
 - *Horejsí V, Zhang W, Schraven B: Transmembrane adaptor proteins: organizers of immunoreceptor signalling. *Nat Rev Immunol.* 2004 Aug;4(8):603-16.
 - *Tedoldi S, Paterson JC, Hansmann ML, Natkunam Y, Rüdiger T, Angelisova P, Du MQ, Robertson H, Roncador G, Sanchez L, Pozzobon M, Masir N, Barry R, Pileri S, Mason DY, Marafioti T, Horejsí V: Transmembrane adaptor molecules: a new category of lymphoid-cell markers. *Blood.* 2006 Jan 1;107(1):213-21.

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EXBIO Praha | Nad Safinou II 341 | 252 50 Vestec u Prahy | Czech Republic
Tel: +420 261 090 666 | Fax: +420 261 090 660 | orders@exbio.cz | www.exbio.cz