

## TECHNICAL DATA SHEET

### CyFlow™ SIT Purified Anti-Hu; Clone SIT-01

**REF** CZ912316

**For Research Use Only.  
Not for use in diagnostic or therapeutic procedures.**

### Specifications

<b>Antigen</b>	SIT
<b>Alternative Names</b>	—
<b>Clone</b>	SIT-01
<b>Clonality</b>	monoclonal
<b>Format</b>	Purified
<b>Host / Isotype</b>	Mouse / IgG1
<b>Species Reactivity</b>	Human
<b>Negative Species Reactivity</b>	—
<b>Quantity [Concentration]</b>	0.1 mg [ 1 mg/ml ]
<b>Immunogen</b>	Bacterially produced recombinant intracellular fragment of human SIT

### Specificity

The mouse monoclonal antibody SIT-01 recognizes SIT (SHP2-interacting transmembrane adaptor protein) expressed exclusively in lymphoid organs. It weakly crossreacts with mouse SIT.

#### Contact Information:

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany  
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: [info@sysmex-partec.com](mailto:info@sysmex-partec.com)

## Application

Based on published sources, this antibody is suitable for the following applications:

- Flow cytometry
- Immunoprecipitation
- Western blot

## Storage Buffer

The reagent is provided in phosphate buffered saline (PBS) solution, pH  $\approx$ 7.4, containing 0.1% (w/v) sodium azide.

## Storage and Stability

<b>Storage</b>	Avoid prolonged exposure to light. Store in the dark at 2-8°C. Do not freeze.
<b>Stability</b>	Do not use after expiration date stamped on vial label.

## Background Information

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.

## References

- 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. < PMID: 10209036 >
- 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. < PMID: 11491537 >
- Horejsí V, Zhang W, Schraven B: Transmembrane adaptor proteins: organizers of immunoreceptor signalling. *Nat Rev Immunol.* 2004 Aug; 4(8):603-16. < PMID: 15286727 >

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- Simeoni L, Posevitz V, Kolsch U, Meinert I, Bruyns E, Pfeffer K, Reinhold D, Schraven B: The transmembrane adaptor protein SIT regulates thymic development and peripheral T-cell functions. Mol Cell Biol. 2005 Sep; 25(17):7557-68. < PMID: 16107703 >
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The Safety Data Sheet for this product is available at [www.sysmex-partec.com/services](http://www.sysmex-partec.com/services).

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