



Anti-SOCS-3 (IN) Blocking Peptide

CATALOG No.: 54442P

BACKGROUND: **SOCS:** Accumulating evidence has demonstrated that cytokine receptor signaling is negatively regulated by a family of Src homology 2 domain-containing adaptor molecules termed SOCS (Suppressor of Cytokine Signaling). To date, there are eight members of SOCS family that have been recognized, they are SOCS-1, 2, 3, 4, 5, 6, 7 and CIS. Structurally, the SOCS proteins are composed of an N-terminal region of variable length and amino acid composition, a central SH2 domain, and a previously unrecognized C-terminal motif that has been called the SOCS box. The SOCS proteins appear to form part of a classical negative feed back loop that regulates cytokine signal transduction via a STAT-induced transcriptional mechanism. Transcription of each of the SOCS genes occurs rapidly in vitro and in vivo in response to cytokines, and once produced, the various members of the SOCS family appear to inhibit signaling in different ways. SOCS 3 is an important regulator of fetal liver hematopoiesis. It is also involved in a broad spectrum of cytokines, e.g. IL-2, IL-3, IL-4, IL-6, Epo, Prolactin, and GH.

APPLICATION: Synthetic peptide can be used for blocking the signal of specific antibody in ELISA, western blot (WB), immunohistochemistry (IHC), immunofluorescence (IF), flow cytometry (FC), immunocytochemistry (ICC) and immunoprecipitation (IP). For blocking purpose, the antibody can be incubated with the blocking peptide at optimal concentrations for 2 hours at room temperature or overnight at 4°C in PBS. The ratio of the blocking peptide and antibody can be 1:5 to 1:10 or higher (wt: wt). The following concentrations are suggested starting points for the blocking process.

WB: 5~50 µg/ml of blocking peptide with 1-5 µg/ml of antibody

IHC: 10~100 µg/ml of blocking peptide with 1-5 µg/ml of antibody

For in vitro research purposes only.

QUALITY CONTROL: The quality of the peptide was evaluated by HPLC and mass spectrometry. QC data will be provided upon request.

STORAGE: Synthetic peptide is supplied as 50 µg / 100 µl in 1X PBS containing 0.02% sodium azide. Store at -20 °C for up to 1 year. Avoid repeated freeze thaw cycles.

Protocol for antibody blocking by peptide in western blot:

1. Set up the following 2 tubes:

AnaSpec, Inc. • 2149 O'Toole Ave. • San Jose, CA 95131
408-452-5055 • Fax 408-452-5059 • service@anaspec.com • www.anaspec.com

Tube #1 "Blocked" - containing antibody and blocking peptide.

Tube #2 "Control" – containing antibody only.

2. Choose an optimal concentration of antibody that consistently gives positive results in your particular protocol. Add the same amount of antibody to each of the 2 tubes.
3. Incubate both tubes with agitation at room temperature for 30 minutes or overnight at 4°C.
4. Perform western blot.
5. Observe the staining pattern. Band(s) that disappears in the Tube #1 sample is specific to the antibody.