

## bs-1896R-PE-Cy5

### • Rabbit Anti-Socs 2 Polyclonal Antibody, PE-Cy5 conjugated

Conjugated Primary Antibodies

#### Background:

The eight members of the recently identified Suppressor of Cytokines Signalling (SOCS) family are SOCS1, SOCS2, SOCS3, SOCS4, SOCS5, SOCS6, SOCS7, 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 C-terminal motif called the SOCS box. The SOCS proteins appear to form part of a classical negative feedback loop that regulates cytokine signal transduction. 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 signalling in different ways.

SOCS2 is capable of inhibiting cytokine signalling by interleukin-6 (IL-6) and growth hormone. SOCS2 interacts with the phosphorylated insulin-like growth factor (IGF-I) receptor, where it may play a regulatory role in cellular growth, differentiation, and inhibition of apoptosis via the Ras and PI3K signalling pathways. In humans, SOCS2 mRNA is expressed widely in both foetal and adult tissues, including foetal kidney and adult heart, skeletal muscle, pancreas, and liver. In rats, SOCS2 mRNA exhibits high levels of expression in liver and heart, and in the mouse nervous system, SOCS2 is expressed exclusively by neurons, where it is switched on developmentally in concordance with neuronal differentiation.

Accumulating evidence demonstrates 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 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 we have 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 2, not like SOCS 1 and SOCS 3, regulates postnatal growth, likely through its ability to influence the GH / IGF 1axis, although they might have overlapping actions.

**Purification:** Was purified by Protein A and peptide affinity chromatography.

#### Storage:

Prepared as lyophilized powder or liquid and shipped on ice. Store at -20°C for one year. Protect from light.

#### Reconstitution:

If the antibody is in liquid form, no reconstitution needed.

Reconstitution is only required for the lyophilized antibody. Please refer to the reconstitution instruction card in the package.

**Size:** 100ul or 100ug lyophilized

**Concentration:** 1ug/uL

**Host:** Rabbit

#### Reactivities:

Human, Mouse, Rat, Dog, Pig, Cow, Horse,

#### Application:

- IF(1:100-500)
- Not yet tested in other applications. Optimal working dilutions must be determined by the end user.

**Antibody Type:** Polyclonal

**Isotype:** IgG

**Molecular Weight:** 23kDa

#### Preservatives:

10ug/uL BSA and 0.1% NaN<sub>3</sub>.

For research use only. CAUTION: Not for human or animal therapeutic or diagnostic use.

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