

**CISH (D4C10) Rabbit mAb**

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<b>Applications:</b> W, IP	<b>Reactivity:</b> H	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 32, 37	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #Q9NSE2	<b>Entrez-Gene Id:</b> 1154
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**Product Usage Information****Application**

Western Blotting  
Immunoprecipitation

**Dilution**

1:1000  
1:100

**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

**Specificity/Sensitivity**

CISH (D4C10) Rabbit mAb recognizes endogenous levels of total CISH protein.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val33 of human CISH protein.

**Background**

The suppressor of cytokine signaling (SOCS) family members are negative regulators of cytokine signal transduction that inhibit the Jak/Stat pathway (1-3). The SOCS family consists of at least 8 members including the originally identified cytokine-inducible SH2-containing protein (CIS1), as well as SOCS1-7. Each SOCS family member contains a central SH2 domain and a conserved carboxy-terminal motif designated as the SOCS box. These proteins are important regulators of cytokine signaling, proliferation, differentiation, and immune responses. CISH/CIS1, the first described member of the SOCS family, is induced by a number of cytokines including IL-2, IL-3, GM-CSF, and EPO (4). The CISH protein appears as a doublet around 32 and 37 kDa, the nature of which is unknown (4). CISH binds to phosphorylated cytokine receptors and can inhibit Stat5 activity (4-6). Expression of CISH is regulated by Stat5, thereby providing feedback modulation (5). Transgenic mice overexpressing CISH display phenotypes similar to Stat5 knockouts, including defects in mammary gland development and in T and NK cell regulation (6). Research studies have shown that polymorphisms within the CISH gene are associated with susceptibility to infectious diseases (7).

**Background References**

- Alexander, W.S. et al. (1999) *J Leukoc Biol* 66, 588-92.
- Chen, X.P. et al. (2000) *Immunity* 13, 287-90.
- Hilton, D.J. et al. (1998) *Proc Natl Acad Sci USA* 95, 114-9.
- Yoshimura, A. et al. (1995) *EMBO J* 14, 2816-26.
- Matsumoto, A. et al. (1997) *Blood* 89, 3148-54.
- Matsumoto, A. et al. (1999) *Mol Cell Biol* 19, 6396-407.
- Khor, C.C. et al. (2010) *N Engl J Med* 362, 2092-101.

**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

**Applications Key**

**W:** Western Blotting **IP:** Immunoprecipitation

**Cross-Reactivity Key**

**H:** Human

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