

CIS (H-80): sc-15344

BACKGROUND

Src homology (SH2) domains are noncatalytic sequences that are conserved among a number of cytoplasmic signaling proteins. These signaling proteins are directly regulated by receptor tyrosine kinases and control the activation of mitogenic signal transduction pathways by such receptors. For instance, ligand-induced activation of the EGF and PDGF receptors induces dimerization, triggers receptor autophosphorylation on tyrosine residues and results in the binding of a number of cytoplasmic SH2 domain proteins such as PLC- γ 1, Ras GAP and PI 3 kinase p85 to the activated receptors. The Shc gene encodes three proteins with a single SH2 domain but no identifiable catalytic domain. CIS, cytokine-inducible SH2-containing protein, is a 267 amino acid protein with a single 96 amino acid SH2 domain that associates the tyrosine-phosphorylated β chain of the IL-3 receptor with the tyrosine-phosphorylated Epo receptor. CIS was initially described as an immediate early cytokine-responsive gene and appears to be a unique regulator of cytokine signaling.

CHROMOSOMAL LOCATION

Genetic locus: CISH (human) mapping to 3p21.2; Cish (mouse) mapping to 9 F1.

SOURCE

CIS (H-80) is a rabbit polyclonal antibody raised against amino acids 1-80 mapping near the N-terminus of CIS of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

CIS (H-80) is recommended for detection of CIS of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CIS (H-80) is also recommended for detection of CIS in additional species, including equine and canine.

Suitable for use as control antibody for CIS siRNA (h): sc-43685, CIS siRNA (m): sc-61854, CIS shRNA Plasmid (h): sc-43685-SH, CIS shRNA Plasmid (m): sc-61854-SH, CIS shRNA (h) Lentiviral Particles: sc-43685-V and CIS shRNA (m) Lentiviral Particles: sc-61854-V.

Molecular Weight of CIS: 32 kDa.

Positive Controls: CIS (h): 293T Lysate: sc-114248.

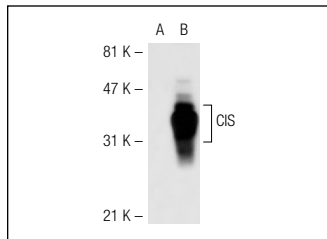
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

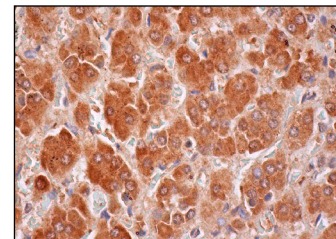
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



CIS (H-80): sc-15344. Western blot analysis of CIS expression in non-transfected: sc-117752 (A) and human CIS transfected: sc-114248 (B) 293T whole cell lysates.



CIS (H-80): sc-15344. Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

- Anderson, S.T., et al. 2006. Mechanisms underlying the diminished sensitivity to prolactin negative feedback during lactation: reduced Stat5 signaling and up-regulation of cytokine-inducible SH2 domain-containing protein (CIS) expression in tuberoinfundibular dopaminergic neurons. *Endocrinology* 147: 1195-1202.
- Rathé, C., et al. 2007. Molecular mechanisms involved in interleukin-4-induced human neutrophils: expression and regulation of suppressor of cytokine signaling. *J. Leukoc. Biol.* 81: 1287-1296.
- Fang, F., et al. 2009. Role of c-Myb during prolactin-induced signal transducer and activator of transcription 5a signaling in breast cancer cells. *Endocrinology* 150: 1597-1606.
- Anderson, S.T., et al. 2009. Maximal expression of suppressors of cytokine signaling in the rat ovary occurs in late pregnancy. *Reproduction* 138: 537-544.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.


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Try **CIS (F-9): sc-166326** or **CIS (D-2): sc-166363**, our highly recommended monoclonal alternatives to CIS (H-80).