SANTA CRUZ BIOTECHNOLOGY, INC.

ICOS (FL-199): sc-25585

BACKGROUND

T cell proliferation and lymphokine production are triggered by occupation of the TCR by antigen, followed by a costimulatory signal that is delivered by a ligand expressed on antigen presenting cells. The B7-related cell surface proteins CD80 (B7-1) and CD86 (B7-2) are expressed on antigen presenting cells. CD80 and CD86 bind to the homologous T cell receptors CD28 and CTLA-4 (cytotoxic T lymphocyte-associated protein-4) and trigger costimulatory signals for optimal T cell activation. CTLA-4 shares 31% overall amino acid identity with CD28 and it has been proposed that CD28 and CTLA-4 are functionally redundant. ICOS (inducible co-stimulator) is related to CD28 and CTLA-4, and these three proteins are thought to compose a receptor family. ICOS stimulation enhances T cell responses and superinduces the synthesis of IL-10, but it does not induce IL-2 upregulation.

REFERENCES

1. Freeman, G.J., et al. 1991. Structure, expression, and T cell costimulatory activity of the murine homologue of the human B lymphocyte activation antigen B7. J. Exp. Med. 174: 625-631.
2. Schwartz, R.H. 1992. Costimulation of T lymphocytes: the role of CD28, CTLA-4, and B7/BB1 in interleukin-2 production and immunotherapy. Cell 71: 1065-1068.

CHROMOSOMAL LOCATION

Genetic locus: ICOS (human) mapping to 2q33.2; Icos (mouse) mapping to 1 C2.

SOURCE

ICOS (FL-199) is a rabbit polyclonal antibody raised against amino acids 1-199 representing full length ICOS of human origin.

PRODUCT

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

APPLICATIONS

ICOS (FL-199) is recommended for detection of ICOS of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ICOS siRNA (h): sc-42770, ICOS siRNA (m): sc-42771, ICOS shRNA Plasmid (h): sc-42770-SH, ICOS shRNA Plasmid (m): sc-42771-SH, ICOS shRNA (h) Lentiviral Particles: sc-42770-V and ICOS shRNA (m) Lentiviral Particles: sc-42771-V.

Molecular Weight of ICOS monomer: 27 kDa.

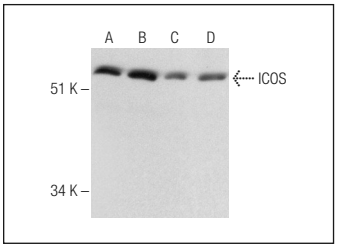
Molecular Weight of ICOS homodimer: 55-60 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, NIH/3T3 whole cell lysate: sc-2210 or RAW 264.7 whole cell lysate: sc-2211.

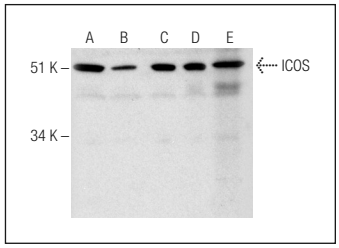
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



ICOS (FL-199): sc-25585. Western blot analysis of ICOS expression in Jurkat (**A**), THP-1 (**B**), U-698-M (**C**) and HL-60 (**D**) whole cell lysates.



ICOS (FL-199): sc-25585. Western blot analysis of ICOS expression in BYDP (**A**), NIH/3T3 (**B**) and RAW 264.7 (**C**) whole cell lysates and mouse lymph node (**D**) and mouse spleen (**E**) tissue extracts.

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.

PROTOCOLS

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