

ICOS Protein, Rat (HEK293, Fc)

Cat. No.:	HY-P74868
Synonyms:	Inducible T-cell costimulator; CD278; AILIM; CVID1; ICOS
Species:	Rat
Source:	HEK293
Accession:	Q9R1T7 (E21-L142)
Gene ID:	64545
Molecular Weight:	Approximately 43-50 kDa due to the glycosylation

PROPERTIES

AA Sequence	E L N D L A N H R M F S F H D G G V Q I S C N Y P E T V Q Q L K M Q L F K D R E V L C D L T K T K G S G N T V S I K N P M S C P Y Q L S N N S V S F F L D N A D S S Q G S Y F L C S L S I F D P P P F Q E K N L S G G Y L L I Y E S Q L C C Q L K L
Biological Activity	Measured by its ability to inhibit Jurkat proliferation induced by B7-H2 in the presence of anti-CD3. The ED ₅₀ for this effect is 3.252 µg/mL in the presence of 3 µg/mL Human B7-H2 and 20 ng/mL of anti-CD3, corresponding to a specific activity is 307.503 units/mg.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	ICOS, an essential protein in T-cell function, significantly enhances various T-cell responses to foreign antigens. It plays a pivotal role in promoting T-cell proliferation, secretion of lymphokines, up-regulation of cell-cell interaction molecules, and efficient assistance for B-cell antibody secretion. Notably, ICOS is indispensable for the normal antibody responses to T-cell dependent antigens, fostering the interaction between T and B-cells. Interestingly, ICOS does not elevate interleukin-2
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production but superinduces the synthesis of interleukin-10. Additionally, it serves a crucial function in preventing the apoptosis of pre-activated T-cells and plays a significant role in CD40-mediated class switching of immunoglobulin isotypes. The protein forms homodimers through disulfide linkages, contributing to its multifaceted role in modulating immune responses.

Caution: Product has not been fully validated for medical applications. For research use only.

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