10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ICOS Antibody
Rabbit Polyclonal Antibody
Catalog # ALS17079

Specification

ICOS Antibody - Product Information

Application	**WB, IHC-P, IF**
Primary Accession	Q9Y6W8
Other Accession	29851
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**22625**
Dilution	**WB~~1:1000** **IHC-P~~N/A** **IF~~1:50~200**

ICOS Antibody - Additional Information

Gene ID 29851

Other Names
ICOS, AILIM, CD278, CVID1, Inducible costimulator, Inducible T-cell co-stimulator, CD278 antigen, Inducible T-cell costimulator

Target/Specificity
Human ICOS

Reconstitution & Storage
PBS, pH 7.3, 0.02% sodium azide, 50% glycerol. Long term: -80°C; Short term: -20°C. Avoid freeze-thaw cycles.

Precautions
ICOS Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

ICOS Antibody - Protein Information

Name ICOS

Synonyms AILIM

Function
Stimulatory receptor expressed in activated or antigen- experienced T-cells that plays an important role in the immune response (PubMed:9930702). Upon binding to its ligand ICOSL expressed on antigen presenting cells (APCs), delivers costimulatory signals that enhances all basic T-cell responses to a foreign antigen, namely proliferation, secretion of

lymphokines including IL10, up-regulation of molecules that mediate cell-cell interaction, and effective help for antibody secretion by B-cells (PubMed:33033255). Also acts as a costimulatory receptor critical for the differentiation of T follicular regulatory cells upon immune challenges such as viral infection (PubMed:27135603). Mechanistically, potentiates TCR-induced calcium flux by augmenting PLCG1 activation and actin remodeling (By similarity). In addition, activates PI3K signaling pathways independently of calcium flux (PubMed:30523347). Essential both for efficient interaction between T and B-cells and for normal antibody responses to T-cell dependent antigens. Prevents the apoptosis of pre-activated T-cells. Plays a critical role in CD40-mediated class switching of immunoglobin isotypes (By similarity).

Cellular Location
[Isoform 1]: Cell membrane; Single-pass type I membrane protein

Tissue Location
Activated T-cells. Highly expressed on tonsillar T- cells, which are closely associated with B-cells in the apical light zone of germinal centers, the site of terminal B-cell maturation Expressed at lower levels in thymus, lung, lymph node and peripheral blood leukocytes. Expressed in the medulla of fetal and newborn thymus

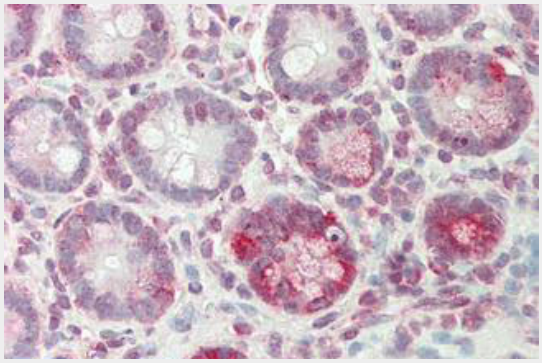
Volume
50 µl

ICOS Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

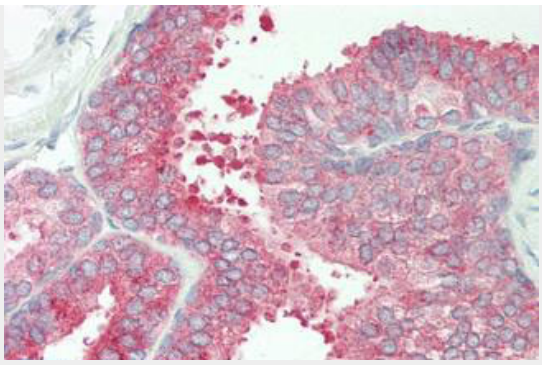
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ICOS Antibody - Images

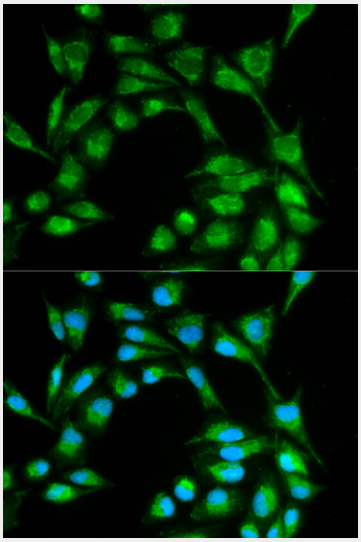


Human Small Intestine: Formalin-Fixed, Paraffin-Embedded (FFPE)

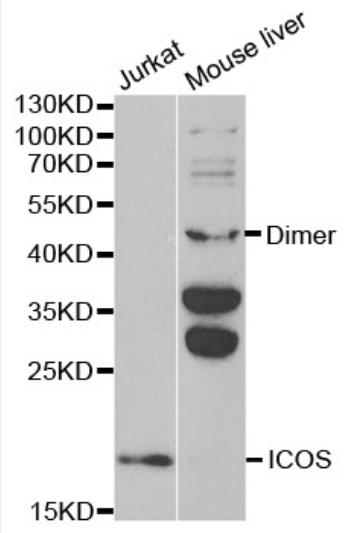
10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



Human Prostate: Formalin-Fixed, Paraffin-Embedded (FFPE)



Immunofluorescence analysis of MCF7 cell using ICOS antibody. Blue: DAPI for nuclear staining.



Western blot analysis of extracts of various cell lines, using ICOS antibody.

ICOS Antibody - Background

Enhances all basic T-cell responses to a foreign antigen, namely proliferation, secretion of lymphokines, up- regulation of molecules that mediate cell-cell interaction, and effective help for antibody secretion by B-cells. Essential both for efficient interaction between T and B-cells and for

normal antibody responses to T-cell dependent antigens. Does not up- regulate the production of interleukin-2, but superinduces the synthesis of interleukin-10. Prevents the apoptosis of pre-activated T-cells. Plays a critical role in CD40-mediated class switching of immunoglobin isotypes (By similarity).

ICOS Antibody - References

Hutloff A.,et al.Nature 397:263-266(1999).
Tezuka K.,et al.Biochem. Biophys. Res. Commun. 276:335-345(2000).
Aicher A.,et al.J. Immunol. 164:4689-4696(2000).
Ling V.,et al.Genomics 78:155-168(2001).
Haaning Andersen A.D.,et al.Tissue Antigens 61:276-285(2003).