

## ARG52744 anti-CD3 antibody [SP7]

Package: 250 µl  
Store at: -20°C

### Summary

Product Description	Rabbit Monoclonal antibody [SP7] recognizes CD3
Tested Reactivity	Hu, Ms, Rat, Pig
Predict Reactivity	Dog
Tested Application	FACS, IHC-FoFr , IHC-Fr, IHC-P, WB
Host	Rabbit
Clonality	Monoclonal
Clone	SP7
Isotype	IgG
Target Name	CD3
Antigen Species	Human
Immunogen	Synthetic peptide corresponding to internal region of the epsilon chain of human CD3 protein.
Conjugation	Un-conjugated
Alternate Names	T-cell surface antigen T3/Leu-4 epsilon chain; T3E; TCRE; T-cell surface glycoprotein CD3 epsilon chain; IMD18; CD antigen CD3e

### Application Instructions

Application table	Application	Dilution
	FACS	Assay-dependent
	IHC-FoFr	Assay-dependent
	IHC-Fr	Assay-dependent
	IHC-P	1:100 - 1:150
	WB	1:25 - 1:250
Application Note	IHC-P: Antigen Retrieval: Boil tissue section in 10mM citrate buffer, pH 6.0 or 1 mM EDTA pH9.0 for 10 min followed by cooling at RT for 20 min. Incubation Time: 30 min at RT. * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	Tonsil and Jurkat	
Calculated Mw	23 kDa	

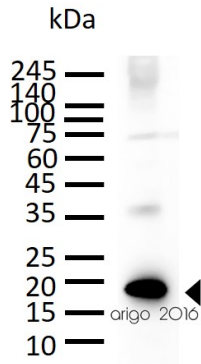
### Properties

Form	Liquid
------	--------

Buffer	Tissue culture supernatant in TBS (pH 7.5), 1% BSA and < 0.1% Sodium azide
Preservative	< 0.1% Sodium azide
Stabilizer	1% BSA
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

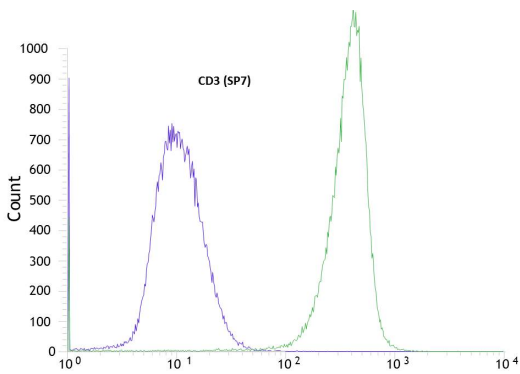
## Bioinformation

Background	CD3 subunit complex is crucial in transducing antigen-recognition signals into the cytoplasm of T cells and in regulating the cell surface expression of the TCR complex. T cell activation through the antigen receptor (TCR) involves the cytoplasmic tails of the CD3 subunits CD3 gamma, CD3 delta, CD3 epsilon and CD3 zeta. These CD3 subunits are structurally related members of the immunoglobulins superfamily encoded by closely linked genes on human chromosome 11. The CD3 components have long cytoplasmic tails that associate with cytoplasmic signal transduction molecules. This association is mediated at least in part by a double tyrosine-based motif present in a single copy in the CD3 subunits. CD3 may play a role in TCR-induced growth arrest, cell survival and proliferation.
Function	CD3: Part of the TCR-CD3 complex present on T-lymphocyte cell surface that plays an essential role in adaptive immune response. When antigen presenting cells (APCs) activate T-cell receptor (TCR), TCR-mediated signals are transmitted across the cell membrane by the CD3 chains CD3D, CD3E, CD3G and CD3Z. All CD3 chains contain immunoreceptor tyrosine-based activation motifs (ITAMs) in their cytoplasmic domain. Upon TCR engagement, these motifs become phosphorylated by Src family protein tyrosine kinases LCK and FYN, resulting in the activation of downstream signaling pathways (PubMed:2470098). In addition of this role of signal transduction in T-cell activation, CD3E plays an essential role in correct T-cell development. Initiates the TCR-CD3 complex assembly by forming the two heterodimers CD3D/CD3E and CD3G/CD3E. Participates also in internalization and cell surface down-regulation of TCR-CD3 complexes via endocytosis sequences present in CD3E cytosolic region (PubMed:10384095, PubMed:26507128). [UniProt]
Highlight	Related products: <a href="#">CD3 antibodies</a> ; <a href="#">CD3 ELISA Kits</a> ; <a href="#">CD3 Duos / Panels</a> ; <a href="#">CD3 recombinant proteins</a> ; <a href="#">Anti-Rabbit IgG secondary antibodies</a> ; Related news: <a href="#">Lymphoma</a> <a href="#">LKB1 deficiency in T cells promotes gut tumors</a> <a href="#">New antibody panels and duos for Tumor immune microenvironment</a> <a href="#">Tumor-Infiltrating Lymphocytes (TILs)</a> <a href="#">Exploring Antiviral Immune Response</a>
Research Area	Cancer antibody; Developmental Biology antibody; Immune System antibody; Lymphocyte Marker antibody; Inflammatory Cell Marker antibody; T-cell Marker antibody; T-cell infiltration Study antibody; Tumor-infiltrating Lymphocyte Study antibody
Cellular Localization	Membrane



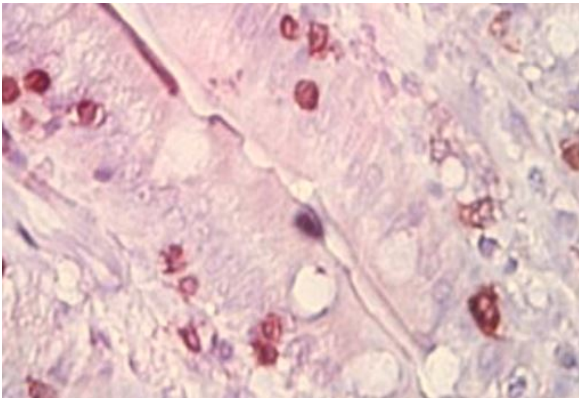
ARG52744 anti-CD3 antibody [SP7] WB image

Western blot: 30 µg of Jurkat cell lysate stained with ARG52744 anti-CD3 antibody [SP7] at 1:250 dilution.



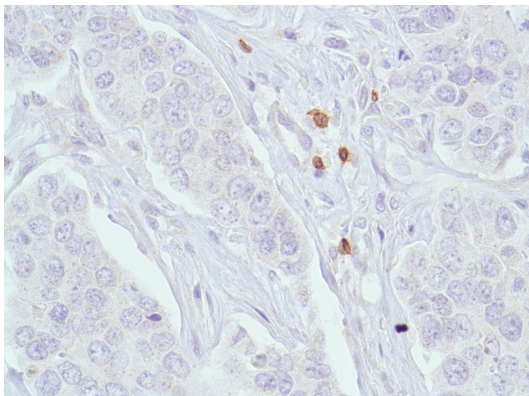
ARG52744 anti-CD3 antibody [SP7] Flow Cytometry image

Flow cytometric: Jurkat cells stained with ARG52744 (green) compare to negative control of rabbit IgG (blue)



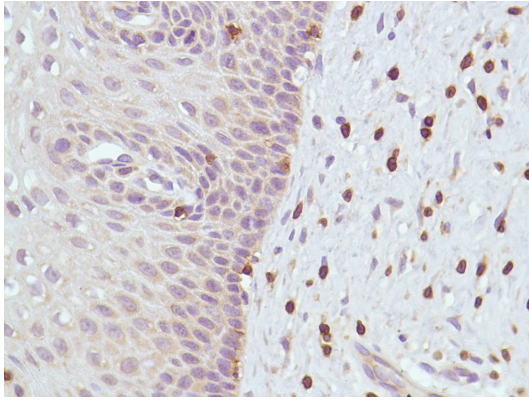
ARG52744 anti-CD3 antibody [SP7] IHC-P image

Immunohistochemistry: Paraffin-embedded Rat small intestine tissue. Antigen Retrieval: Heat mediation was performed in Sodium citrate buffer (10 mM Sodium citrate, 0.05% Tween 20, pH 6.0) by microwave with 750W for 2 X 8min. The tissue section was stained with ARG52744 anti-CD3 antibody [SP7] at 1:100 dilution.



ARG52744 anti-CD3 antibody [SP7] IHC-P image

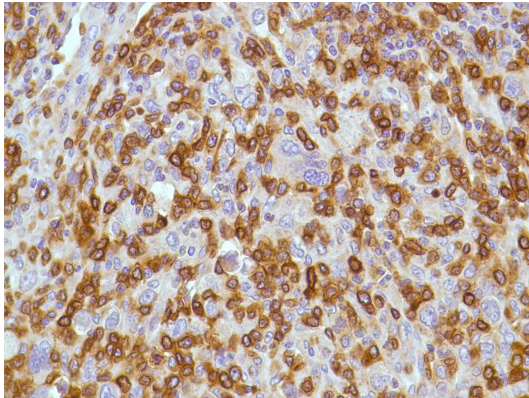
Immunohistochemistry: Human Breast Ductal Carcinoma stained with CD3 antibody [SP7] (ARG52744)



ARG52744 anti-CD3 antibody [SP7] IHC-P image

Immunohistochemistry: Human Cervix stained with CD3 antibody [SP7] (ARG52744)

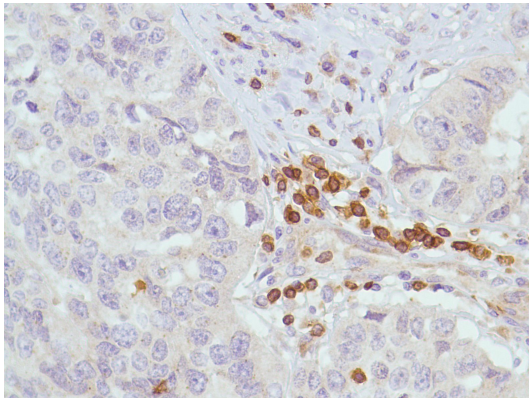
---



ARG52744 anti-CD3 antibody [SP7] IHC-P image

Immunohistochemistry: Human HK Lymphoma stained with CD3 antibody [SP7] (ARG52744)

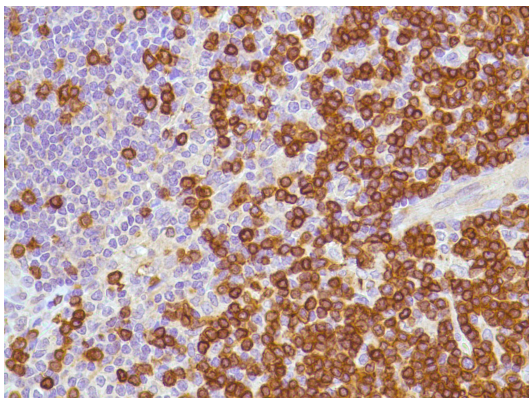
---



ARG52744 anti-CD3 antibody [SP7] IHC-P image

Immunohistochemistry: Human Lung Squamous Cell Carcinoma stained with CD3 antibody [SP7] (ARG52744)

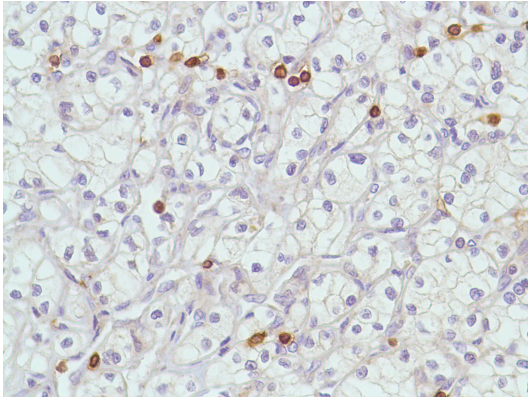
---



ARG52744 anti-CD3 antibody [SP7] IHC-P image

Immunohistochemistry: Human Reactive Lymph Node stained with CD3 antibody [SP7] (ARG52744)

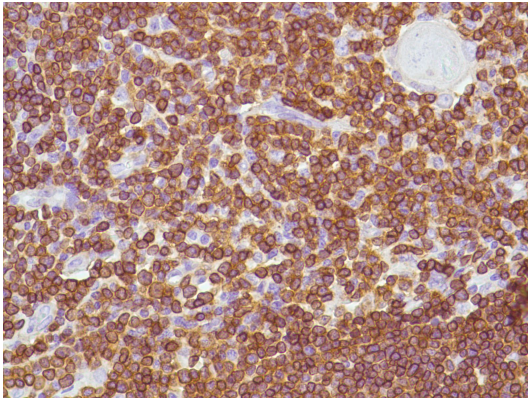
---



ARG52744 anti-CD3 antibody [SP7] IHC-P image

Immunohistochemistry: Human Renal Cell Carcinoma stained with CD3 antibody [SP7] (ARG52744)

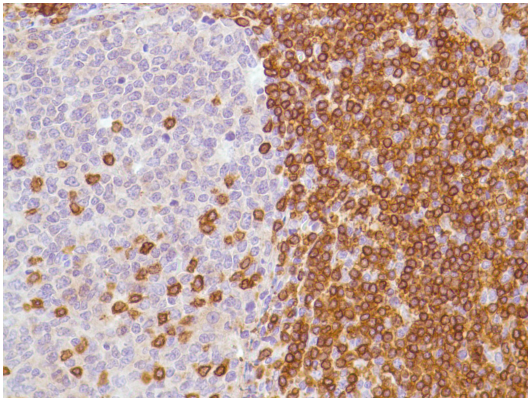
---



ARG52744 anti-CD3 antibody [SP7] IHC-P image

Immunohistochemistry: Human Thymus stained with CD3 antibody [SP7] (ARG52744)

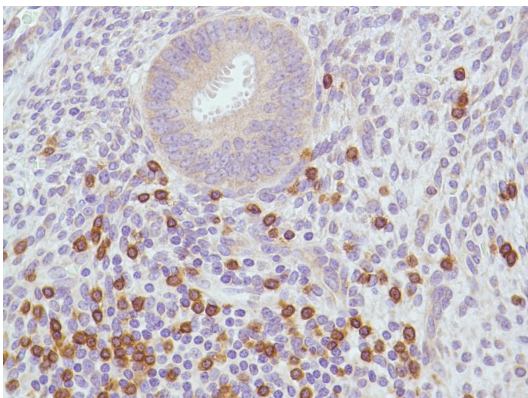
---



ARG52744 anti-CD3 antibody [SP7] IHC-P image

Immunohistochemistry: Human Tonsil stained with CD3 antibody [SP7] (ARG52744)

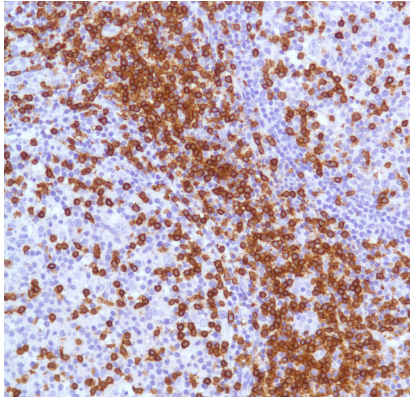
---



ARG52744 anti-CD3 antibody [SP7] IHC-P image

Immunohistochemistry: Human Uterus stained with CD3 antibody [SP7] (ARG52744)

---



ARG52744 anti-CD3 antibody [SP7] IHC-P image

Immunohistochemistry: Human Tonsil stained with CD3 antibody [SP7] (ARG52744)

---