

ITK Monoclonal Antibody (2F12), eBioscience™

Product Details

Size	100 µg
Species Reactivity	Human, Mouse, Rat
Host/Isotype	Mouse / IgG1, kappa
Class	Monoclonal
Type	Antibody
Clone	2F12
Conjugate	Unconjugated
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C
RRID	AB_2572984

Applications	Tested Dilution	Publications
Western Blot (WB)	1:1,000	-
Immunohistochemistry (Paraffin) (IHC (P))	1 µg/mL	-

Product Specific Information

Description: The monoclonal antibody 2F12 recognizes human, mouse, and rat ITK. ITK (also known as Interleukin-2 inducible T-cell kinase, T-cell-specific kinase, Tyrosine-protein kinase Lyk, Emt, and Tsk) is a member of the Tec family of kinases that include Tec, Btk, Bmx, and Txk. Tec family kinases play an indispensable role in activation of phospholipase C and activation of calcium-dependent signaling cascades following antigen receptor triggering. ITK is highly expressed by T cells and is required for optimal TCR-induced PLCgamma1 activation. Mice congenitally lacking ITK show profound defects in T cell development and signaling. Defects in ITK are the cause of lymphoproliferative syndrome EBV-associated autosomal type 1 (LPSA1). ITK also plays a role in the development of various T cell mediated inflammatory disorders such as atopic dermatitis, psoriasis, and allergic asthma.

Applications Reported: This 2F12 antibody has been reported for use in western blotting, immunohistochemical staining of formalin-fixed paraffin embedded tissue sections, and microscopy.

Applications Tested: This 2F12 antibody has been tested by immunohistochemistry of formalin-fixed paraffin embedded human tissue using high pH antigen retrieval and can be used at less than or equal to 1 µg/mL. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Purity: Greater than 90%, as determined by SDS-PAGE.

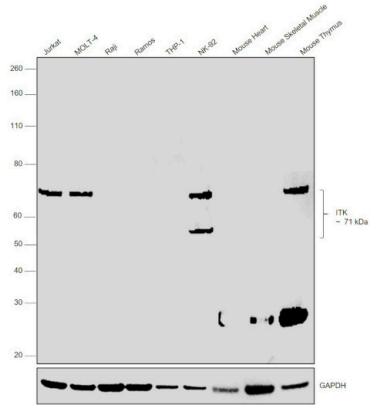
Aggregation: Less than 10%, as determined by HPLC.

Filtration: 0.2 µm post-manufacturing filtered.

Product Images For ITK Monoclonal Antibody (2F12), eBioscience™

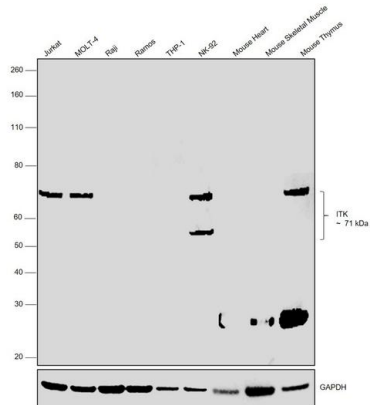
ITK Antibody (14-9752-82)

Antibody specificity was demonstrated by detection of differential basal expression of the target across cell lines and tissues tested owing to their inherent genetic constitution. Relative expression of Tyrosine-protein kinase ITK /TSK was observed in T cell lines (Jurkat and MOLT-4) in comparison to B cell lines (Raji and Ramos) and in mouse thymus in comparison to skeletal muscle and heart using Anti-ITK Monoclonal Antibody (2F12), eBioscience™ (Product # 14-9752-82) in Western Blot. {RE}



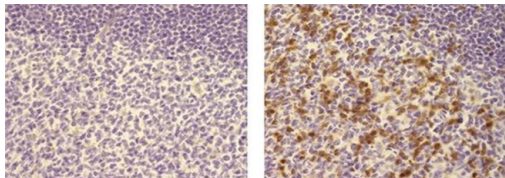
ITK Antibody (14-9752-82) in WB

Western blot was performed using Anti-ITK Monoclonal Antibody (2F12), eBioscience™ (Product # 14-9752-82) and a 71 kDa band corresponding to Tyrosine-protein kinase ITK/TSK was detected in the T-cell (Jurkat and MOLT-4) and natural killer cell line (NK-92) but not in B-cell lines (Raji and Ramos) and THP-1 monocyte. Whole cell extracts (40 µg lysate) of Jurkat (Lane 1), MOLT-4 (Lane 2), Raji (Lane 3), Ramos (Lane 4), THP-1 (Lane 5), NK-92 (Lane 6), Mouse Heart (Lane 7), Mouse Skeletal Muscle (Lane 8) and Mouse Thymus (Lane 9) were electrophoresed using NuPAGE™ 10% Bis-Tris Protein Gel (Product # NP0301BOX). Resolved proteins were then transferred onto a Nitrocellulose membrane (Product # IB23001) by iBlot® 2 Dry Blotting System (Product # IB21001). The blot was probed with the primary antibody (1:1000 dilution) and detected by chemiluminescence with Goat anti-Mouse IgG (H+L) Superclonal™ Recombinant Secondary Antibody, HRP (Product # A28177, 1:10000 dilution) using the iBright FL 1000 (Product # A32752). Chemiluminescent detection was performed using SuperSignal™ West Atto Ultimate Sensitivity Substrate (Product # A38556). The band detected at ~25 kDa corresponds to the free circulating IgG detected in mouse tissues.



ITK Antibody (14-9752-82) in IHC (P)

Immunohistochemistry of formalin-fixed paraffin embedded human tonsil tissue using 1 µg/mL of Mouse IgG1 K Isotype Control Purified (left) or 1 µg/mL of Anti-ITK Purified (right) followed by Anti-Mouse IgG Biotin, Streptavidin-HRP, and DAB visualization. Nuclei are counterstained with hematoxylin.



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