

## DESCRIPTION

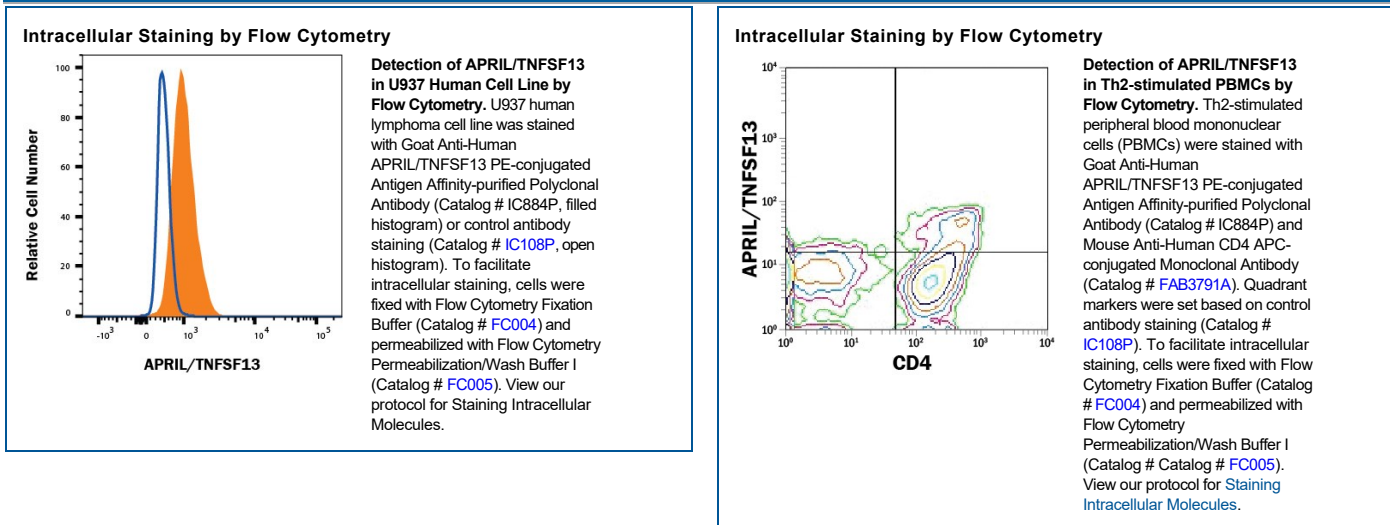
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human APRIL/TNFSF13 in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 1% cross-reactivity with recombinant human (rh) Fas Ligand, rhTNF- $\alpha$ , rhTRAIL, and rhTRANCE is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human APRIL/TNFSF13
<b>Conjugate</b>	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
<b>Formulation</b>	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.  *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Intracellular Staining by Flow Cytometry	10 $\mu$ L/10 <sup>6</sup> cells	See Below

## DATA



## PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul>

## BACKGROUND

APRIL (A Proliferation-inducing Ligand), also known as TNFSF13, TALL2, and TRDL1, is a member of the TNF ligand superfamily. APRIL is synthesized as a 32 kDa type II transmembrane protein which is cleaved by furin in the Golgi to release a 17 kDa soluble molecule. Secreted APRIL consists almost entirely of a single TNF homology domain. Little or no transmembrane APRIL is expressed on the cell surface. Alternate splicing generates isoforms with short deletions at the N- or C-terminus. Human APRIL shares 85% aa sequence identity with mouse and rat APRIL. Among TNF superfamily ligands, BAFF shows the greatest sequence homology with APRIL, and the two proteins exhibit overlapping biological activities. APRIL promotes cellular proliferation and provides protection from apoptosis in normal and transformed cells. It is present in elevated amounts in a wide variety of cancers, primarily due to expression by tumor-infiltrating neutrophils, and is known to be expressed by T cells, macrophages, B cells, adipocytes and capillary endothelial cells. Both APRIL and BAFF bind and signal through the TNF superfamily receptors TACI and BCMA, and BAFF additionally functions through BAFF R. A stretch of basic amino acids at the N-terminus of APRIL is required for its interaction with Heparan Sulfate Proteoglycans (HSPGs). Binding to HSPGs is independent of APRIL's binding to TACI and BCMA. Interaction with HSPGs serves to concentrate APRIL on the surface of cells, thereby favoring TACI- or BCMA-mediated effects. APRIL can form bioactive heterotrimers with BAFF, and these circulate in the serum of patients with rheumatic immune disorders. A bioactive protein known as TWE-PRIL consists of the intracellular domain, transmembrane segment, and stalk region of TWEAK fused to the TNF homology domain of APRIL. TWE-PRIL is expressed in monocytes and activated T cells, and in contrast to APRIL, is presented on the cell surface.