

## APRIL/TNFSF13 Protein, Human, Recombinant (Flag & His)

### General Information

Synonyms:	TRDL-1;TNF- and APOL-related leukocyte expressed ligand 2;Tumor necrosis factor ligand superfamily member 13;A proliferation-inducing ligand;TNF-related death ligand 1;TNFSF13; CD256;TALL-2;APRIL
Protein Construction:	Lys112-Leu250
Species:	Human
Expression Host:	HEK293 Cells
Accession:	O75888
Molecular Weight:	60 KDa (reducing condition)
AA Sequence:	Lys112-Leu250

### QC Testing

Biological Activity:	1. Loaded Cynomolgus BCMA-Fc on Protein A Biosensor, can bind Human APRIL-His with an affinity constant of 0.005 nM as determined in BLI assay. (Regularly tested) 2. Immobilized Human APRIL -Flag-His at 1µg/ml (100 µl/well) can bind Cynomolgus BCMA-Fc. The ED50 of Cynomolgus BCMA-Fc is 4.23 ng/ml. (Regularly tested);
Purity:	Greater than 95% as determined by reducing SDS-PAGE. (QC verified)
Endotoxin:	< 0.1 ng/µg (1 EU/µg) as determined by LAL test.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing 20 mM PB, 1M NaCl, pH8.3.

### Preparation and Storage

#### Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 µg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

#### Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

#### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

APRIL (a proliferation-inducing ligand), also known as TNFSF13, TALL2, TRDL1, and CD256, is a member of the TNF

ligand superfamily. It is synthesized as a 32 kDa proprotein which is cleaved by furin in the Golgi to release the active 17 kDa soluble molecule. Secreted human APRIL, which consists almost entirely of a single TNF homology domain, shares 85% amino acid sequence identity with mouse and rat APRIL. Both APRIL and its close relative BAFF bind and signal through the TNF superfamily receptors TACI and BCMA, while BAFF additionally functions through BAFF R. APRIL binds to heparan sulfate proteoglycans (HSPGs) independently of its binding to TACI and BCMA. APRIL can form bioactive heterotrimers with BAFF, and these circulate in the serum of patients with rheumatic immune disorders. APRIL enhances the proliferation and survival of plasma cells and also promotes T cell-dependent humoral responses. APRIL levels are elevated in the serum during coronary artery disease, and it is also elevated in many cancers primarily due to expression by tumor-infiltrating neutrophils.

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