

Mouse TACI ELISA Kit (TNFRSF13B) ab206312

Recombinant SimpleStep ELISA

6 Images

Overview

Product name Mouse TACI ELISA Kit (TNFRSF13B)

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
mouse serum	5			= 5%

					Inter-assay
Sample	n	Mean	SD	CV%	
mouse serum	3			= 3.1%	

Sample type Cell culture supernatant, Serum, Plasma, Cell culture extracts, Tissue Extracts

Assay type Sandwich (quantitative)

Sensitivity 4 pg/ml

Range 15.83 pg/ml - 1013 pg/ml

Recovery	Sample specific recovery		
	Sample type	Average %	Range
	Cell culture supernatant	106	100% - 110%
	Serum	94	90% - 96%
	Cell culture extracts	103	99% - 107%
	Tissue Extracts	106	100% - 112%
	EDTA Plasma	94	90% - 97%
	Cit plasma	97	95% - 98%

<b>Assay time</b>	1h 30m
<b>Assay duration</b>	One step assay
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse <b>Does not react with:</b> Goat, Cow, Pig
<b>Product overview</b>	<p>Mouse TACI ELISA Kit (TNFRSF13B) (ab206312) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of TACI (TNFRSF13B) protein in cell culture extracts, cell culture supernatant, plasma, serum, and tissue extracts. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse TACI (TNFRSF13B) with 4 pg/ml sensitivity.</p> <p>SimpleStep ELISA® technology employs capture antibodies conjugated to an affinity tag that is recognized by the monoclonal antibody used to coat our SimpleStep ELISA® plates. This approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. See the SimpleStep ELISA® protocol summary in the image section for further details. Our SimpleStep ELISA® technology provides several benefits:</p> <ul style="list-style-type: none"> <li>- Single-wash protocol reduces assay time to 90 minutes or less</li> <li>- High sensitivity, specificity and reproducibility from superior antibodies</li> <li>- Fully validated in biological samples</li> <li>- 96-wells plate breakable into 12 x 8 wells strips</li> </ul> <p>A 384-well SimpleStep ELISA® microplate (<a href="#">ab203359</a>) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.</p>
<b>Notes</b>	<p>Transmembrane activator and CAML interactor (TACI), also known as TNF receptor super family member 13B (TNFRSF13B), is a transmembrane receptor expressed primarily in mature B cells and is a regulator of B-cell homeostasis and immune response. Specifically, TACI binds both a proliferation-inducing ligand (APRIL) and B cell activating factor of the tumor necrosis factor family (BAFF) similarly with high affinity. Taci<sup>-/-</sup> mice have demonstrated that inadequate TACI signaling promotes the development of autoimmune diseases. This assay recognizes the extracellular N-terminus of TACI.</p> <p>Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances. It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.</p>
<b>Platform</b>	Pre-coated microplate (12 x 8 well strips)

## Properties

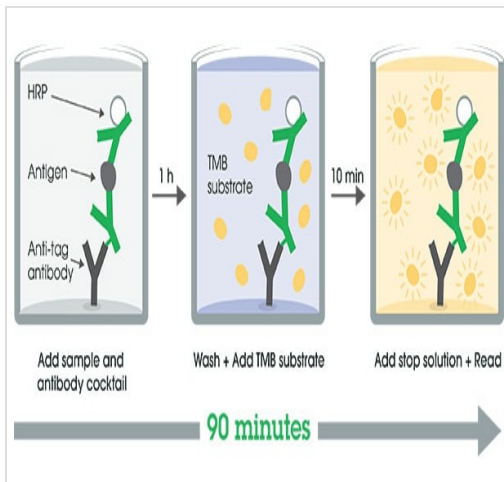
**Storage instructions** Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
10X Mouse TACI Capture Antibody	1 x 600µl
10X Mouse TACI Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml

Components	1 x 96 tests
50X Cell Extraction Enhancer Solution (ab193971)	1 x 1ml
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml
Antibody Diluent CPI - HAMA Blocker (ab193969)	1 x 6ml
Mouse TACI Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

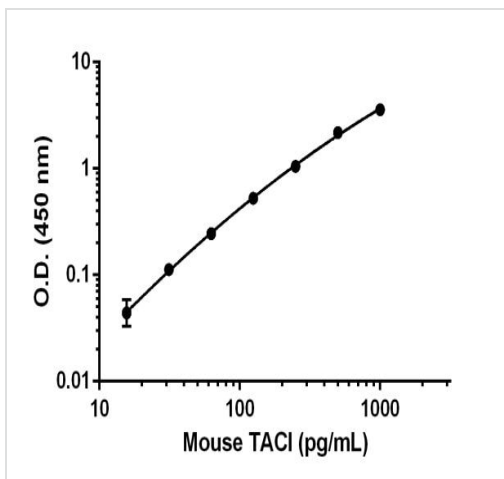
<b>Function</b>	Receptor for TNFSF13/APRIL and TNFSF13B/TALL1/BAFF/BLYS that binds both ligands with similar high affinity. Mediates calcineurin-dependent activation of NF-AT, as well as activation of NF-kappa-B and AP-1. Involved in the stimulation of B- and T-cell function and the regulation of humoral immunity.
<b>Tissue specificity</b>	Highly expressed in spleen, thymus, small intestine and peripheral blood leukocytes. Expressed in resting B-cells and activated T-cells, but not in resting T-cells.
<b>Involvement in disease</b>	<p>Defects in TNFRSF13B are the cause of immunodeficiency common variable type 2 (CVID2) [MIM:240500]. CVID2 is a primary immunodeficiency characterized by antibody deficiency, hypogammaglobulinemia, recurrent bacterial infections and an inability to mount an antibody response to antigen. The defect results from a failure of B-cell differentiation and impaired secretion of immunoglobulins; the numbers of circulating B cells is usually in the normal range, but can be low.</p> <p>Defects in TNFRSF13B are a cause of immunoglobulin A deficiency 2 (IGAD2) [MIM:609529]. Selective deficiency of immunoglobulin A (IGAD) is the most common form of primary immunodeficiency, with an incidence of approximately 1 in 600 individuals in the western world. Individuals with symptomatic IGAD often have deficiency of IgG subclasses or decreased antibody response to carbohydrate antigens such as pneumococcal polysaccharide vaccine. Individuals with IGAD also suffer from recurrent sinopulmonary and gastrointestinal infections and have an increased incidence of autoimmune disorders and of lymphoid and non-lymphoid malignancies. In vitro studies have suggested that some individuals with IGAD have impaired isotype class switching to IgA and others may have a post-switch defect. IGAD and CVID have been known to coexist in families. Some individuals initially present with IGAD1 and then develop CVID. These observations suggest that some cases of IGAD and CVID may have a common etiology.</p>
<b>Sequence similarities</b>	Contains 2 TNFR-Cys repeats.
<b>Cellular localization</b>	Membrane.

## Images



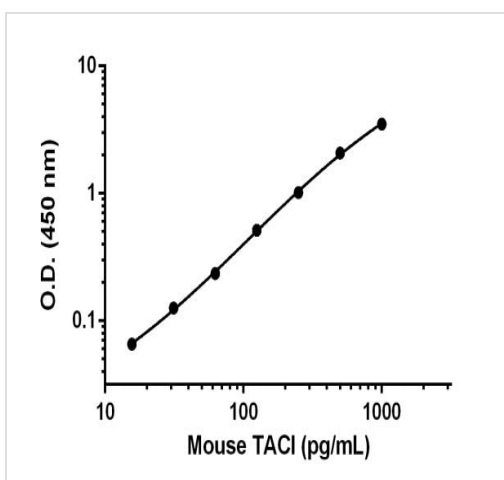
Other - Mouse TACI ELISA Kit (TNFRSF13B)  
(ab206312)

SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



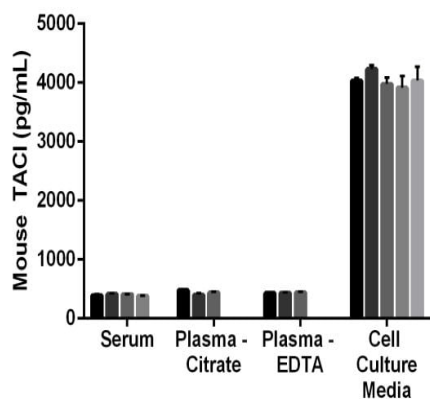
Example of mouse TACI standard curve in Sample Diluent NS.

Background-subtracted data values (mean  $\pm$  SD) are graphed.



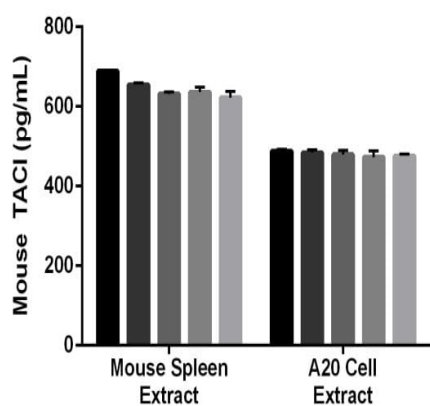
Example of mouse TACI standard curve in 1X Extraction Buffer PTR.

Background-subtracted data values (mean  $\pm$  SD) are graphed.



Interpolated concentrations of TACI in mouse serum, mouse plasma (citrate), and mouse plasma (EDTA).

The concentrations of TACI were measured in duplicate and interpolated from the TACI standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean  $\pm$  SD, n=2). The mean TACI concentration was determined to be 801.6 pg/mL in neat mouse serum, 1744.4 pg/mL in neat mouse plasma (Citrate), 1766.4 pg/mL in neat mouse plasma (EDTA), and 16.2 ng/mL in neat A20 Cell Culture Supernatant.



Interpolated concentrations of TACI in mouse spleen and A20 cell extracts.

The concentrations of TACI were measured in duplicate and interpolated from the TACI standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean  $\pm$  SD, n=2). The mean TACI concentration was determined to be 5174.4 pg/mL in 4 mg/mL mouse spleen extract and 23 ng/mL in 150  $\mu$ g/mL A20 cell extract.

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Sandwich ELISA - Mouse TACI ELISA Kit  
(TNFRSF13B) (ab206312)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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