

Mouse sTNF RI ELISA Kit (TNFRSF1A) ab202408

Recombinant SimpleStep ELISA

1 References 7 Images

Overview

Product name Mouse sTNF RI ELISA Kit (TNFRSF1A)

Detection method Colorimetric

Precision	Intra-assay				
	Sample	n	Mean	SD	CV%
	Serum	5			1.5%
	Inter-assay				
	Sample	n	Mean	SD	CV%
	Serum	3			13.8%

Sample type Cell culture supernatant, Urine, Serum, EDTA Plasma, Cit plasma

Assay type Sandwich (quantitative)

Sensitivity 1.2 pg/ml

Range 7.81 pg/ml - 500 pg/ml

Recovery	Sample specific recovery		
	Sample type	Average %	Range
	Urine	103	101% - 109%
	Serum	113	107% - 118%
	Cell culture media	95	94% - 95%
	EDTA Plasma	102	97% - 109%
	Cit plasma	106	97% - 112%

Assay time 1h 30m

Assay duration One step assay

Species reactivity**Reacts with:** Mouse**Does not react with:** Goat, Horse, Cow**Product overview**

Mouse sTNF RI ELISA Kit (TNFRSF1A) (ab202408) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of sTNF RI (TNFRSF1A) protein in cell culture supernatant, cit plasma, edta plasma, serum, and urine. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse sTNF RI (TNFRSF1A) with 1.2 pg/ml sensitivity.

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:

- Single-wash protocol reduces assay time to 90 minutes or less
- High sensitivity, specificity and reproducibility from superior antibodies
- Fully validated in biological samples
- 96-wells plate breakable into 12 x 8 wells strips

A 384-well SimpleStep ELISA® microplate (**ab203359**) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

Notes

Tumor necrosis factor receptor superfamily member 1A (TNF RI) is a transmembrane protein with an extracellular domain that binds to TNF alpha. This extracellular domain can be proteolytically cleaved to make soluble TNF RI. The standard protein in this kit is soluble TNF RI and the capture and detector antibodies were raised against this region of TNF RI.

Platform

Pre-coated microplate (12 x 8 well strips)

Properties**Storage instructions**

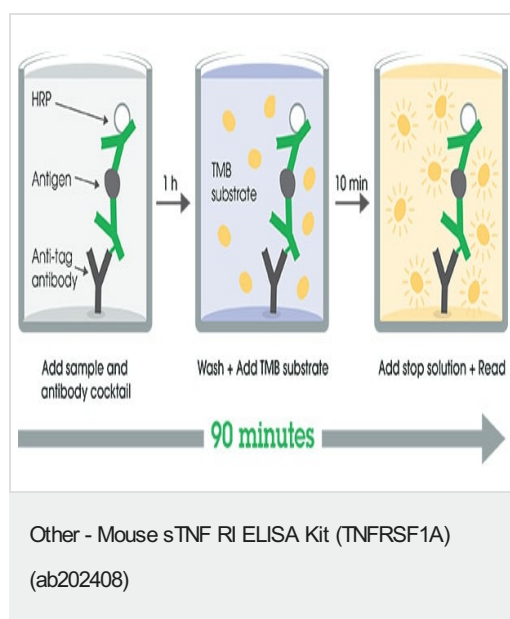
Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
10X Mouse sTNF RI Capture Antibody	1 x 600µl
10X Mouse sTNF RI Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent 4BC	1 x 6ml
Mouse sTNF RI 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

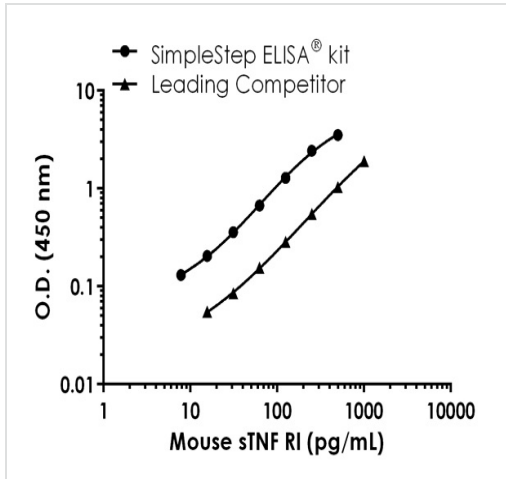
Components	1 x 96 tests
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

Function	Receptor for TNFSF2/TNF-alpha and homotrimeric TNFSF1/lymphotoxin-alpha. The adapter molecule FADD recruits caspase-8 to the activated receptor. The resulting death-inducing signaling complex (DISC) performs caspase-8 proteolytic activation which initiates the subsequent cascade of caspases (aspartate-specific cysteine proteases) mediating apoptosis. Contributes to the induction of non-cytocidal TNF effects including anti-viral state and activation of the acid sphingomyelinase.
Involvement in disease	Familial hibernian fever Multiple sclerosis 5
Sequence similarities	Contains 1 death domain. Contains 4 TNFR-Cys repeats.
Domain	The domain that induces A-SMASE is probably identical to the death domain. The N-SMASE activation domain (NSD) is both necessary and sufficient for activation of N-SMASE. Both the cytoplasmic membrane-proximal region and the C-terminal region containing the death domain are involved in the interaction with TRPC4AP.
Post-translational modifications	The soluble form is produced from the membrane form by proteolytic processing.
Cellular localization	Cell membrane. Golgi apparatus membrane. Secreted. A secreted form is produced through proteolytic processing and Secreted. Lacks a Golgi-retention motif, is not membrane bound and therefore is secreted.

Images

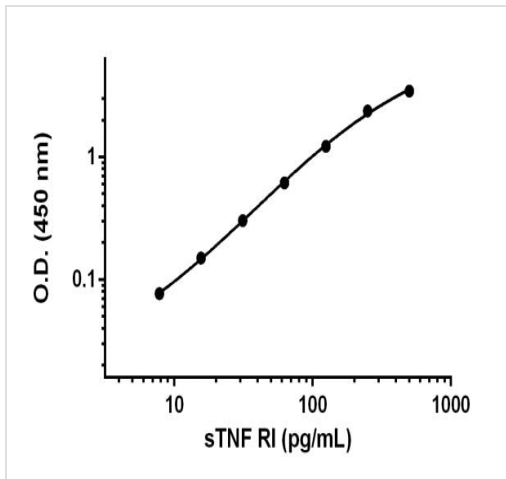


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



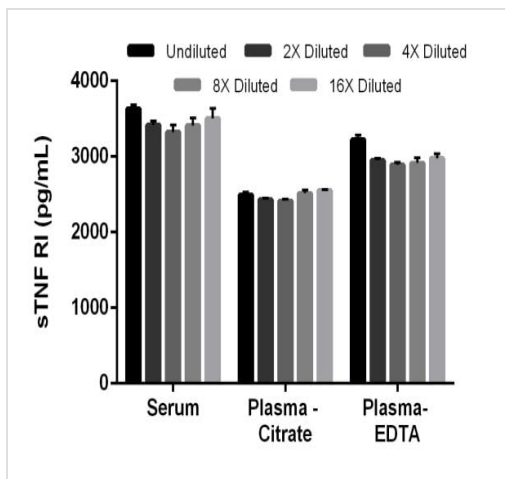
Mouse TNFRSF1A standard curve comparison data.

Standard curve comparison between mouse TNFRSF1A SimpleStep ELISA[®] kit and traditional ELISA kit from leading competitor. SimpleStep ELISA kit shows comparable sensitivity.



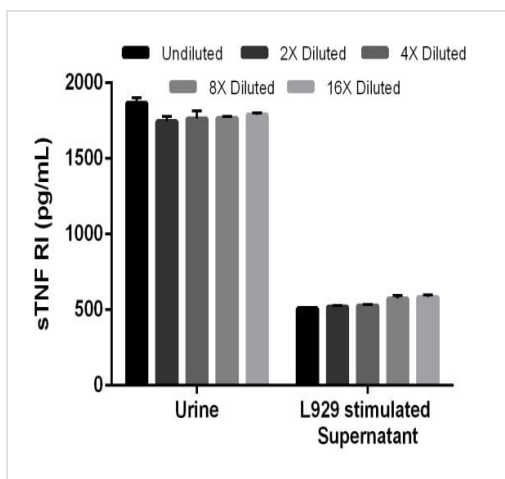
Example of sTNF RI standard curve.

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



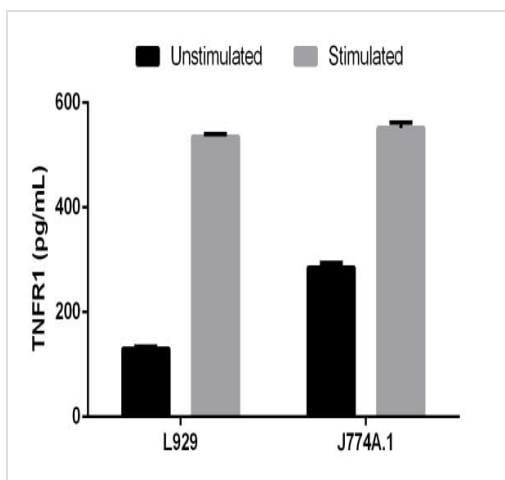
Interpolated concentrations of sTNF RI in mouse serum, plasma (citrate), and platelet poor plasma (EDTA).

The concentrations of sTNF RI were measured in duplicate and interpolated from the sTNF RI standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean \pm SD, $n=2$). The mean sTNF RI concentration was determined to be 3,427 pg/mL in mouse serum, 2,484 pg/mL in mouse plasma (Citrate), and 2,982 pg/mL in mouse plasma (EDTA).



Interpolated concentrations of sTNF RI in mouse urine and L929 stimulated cell culture supernatant.

The concentrations of sTNF RI were measured in duplicate and interpolated from the sTNF RI standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean \pm SD, $n=2$). The mean sTNF RI concentration was determined to be 1,754 pg/mL in mouse urine, 538.3 pg/mL L929 stimulated cell culture supernatant.



Comparison of secreted sTNF RI in unstimulated and PMA/PHA-stimulated L929 and J774A.1 Cells.

L929 and J774A.1 cells were grown in the absence (unstimulated) or presence of Phorbol Myristate Acetate (PMA) and phytohemagglutinin (PHA) (stimulated) for 3 days. sTNF RI was measured in 2-fold diluted cell culture supernatants of unstimulated and PMA/PHA stimulated L929 and J774A.1 and cell culture media. Measured values were interpolated from the sTNF RI Standard Curve diluted in Sample Diluent NS and corrected for dilution factor. Mean of duplicate values \pm SD are graphed. sTNF RI is undetectable in media.

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Animal-free production

Sandwich ELISA - Mouse sTNF RI ELISA Kit
(TNFRSF1A) (ab202408)

To learn more about the advantages of recombinant antibodies see [here](#).

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