abcam

Product datasheet

Human BST2 ELISA Kit ab231931

Recombinant SimpleStep ELISA

8 Images

Overview

Product name Human BST2 ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Serum	9			2%

Inter-assay

Sample	n	Mean	SD	CV%
Serum	3			8.2%

Sample type Cell culture supernatant, Serum, Cell culture extracts, Hep Plasma, EDTA Plasma, Cit plasma

Assay type Sandwich (quantitative)

Sensitivity 0.28 pg/ml

Range 5 pg/ml - 300 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Serum	101	99% - 103%
Cell culture extracts	113	109% - 117%
Cell culture media	100	99% - 100%
Hep Plasma	96	93% - 1010%
EDTA Plasma	102	99% - 104%
Cit plasma	100	98% - 103%

Assay time 1h 30m

Assay duration One step assay

Species reactivity **Reacts with:** Human
Does not react with: Cow

Product overview Human BST2 ELISA Kit (ab231931) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of BST2 protein in cell culture extracts, cell culture supernatant, cit plasma, edta plasma, hep plasma, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human BST2 with NULL NULL 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 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.

Platform Pre-coated microplate (12 x 8 well strips)

Properties

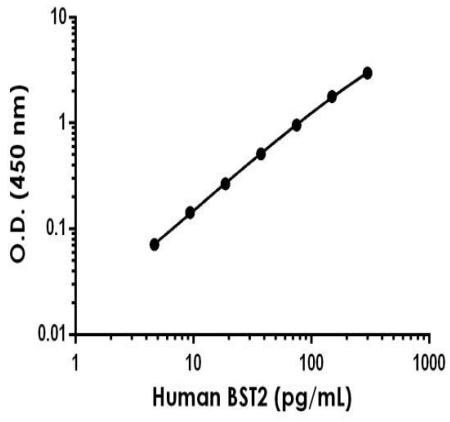
Storage instructions Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
10X Human BST2 Capture Antibody	1 x 600µl
10X Human BST2 Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml
Antibody Diluent 5BR	1 x 6ml
Human BST2 Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit

Components	1 x 96 tests
Sample Diluent NS (ab193972)	1 x 12ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

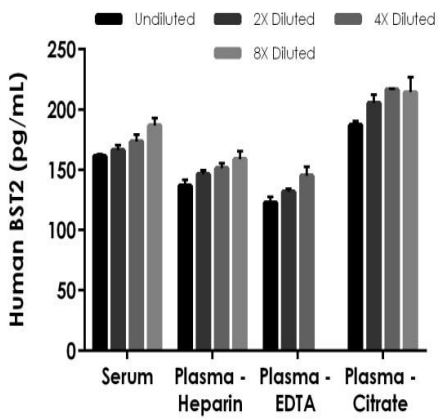
Function	May be involved in the sorting of secreted proteins (By similarity). May be involved in pre-B-cell growth. Antiretroviral defense protein, that blocks release of retrovirus from the cell surface. Depleted unpon HIV-1 infection by viral VPU protein through 20S proteasome degradation. Depleted upon infection by human Kaposi's sarcoma-associated herpesvirus (KSHV) through ubiquitination and subsequent degradation. May play a role in B-cell activation in rheumatoid arthritis.
Tissue specificity	Predominantly expressed in liver, lung, heart and placenta. Lower levels in pancreas, kidney, skeletal muscle and brain. Overexpressed in multiple myeloma cells. Highly expressed during B-cell development, from pro-B precursors to plasma cells. Highly expressed on T-cells, monocytes, NK cells and dendritic cells (at protein level).
Sequence similarities	Belongs to the tetherin family.
Domain	The extracellular coiled coil domain is important for virus retention at the cell surface and prevention of virus spreading.
Post-translational modifications	Monoubiquitinated by KSHV E3 ubiquitin-protein ligase K5, leading to its targeting to late endosomes and degradation.
Cellular localization	Golgi apparatus > trans-Golgi network. Cell membrane. Cell membrane. Late endosome. Targeted to late endosomes upon KSHV infection and subsequent ubiquitination. Targeted to the trans-Golgi network by viral VPU protein.

Images



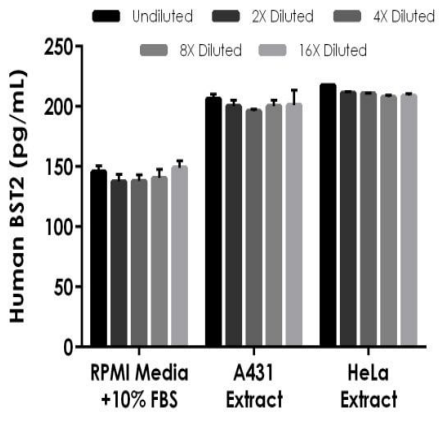
Example of human BST2 standard curve in 1X Cell Extraction Buffer PTR.

The BST2 standard curve was prepared as described in Section 10. Background-subtracted data values (mean +/- SD) are graphed.



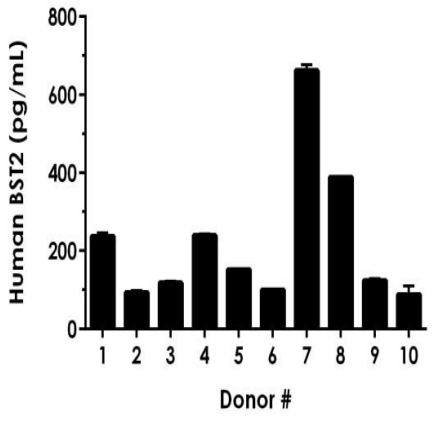
Interpolated concentrations of native BST2 in human serum and plasma samples.

The concentrations of BST2 were measured in duplicates, interpolated from the BST2 standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 100%, plasma (heparin) 100%, plasma (EDTA) 50%, and plasma (citrate) 12.5%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean BST2 concentration in the neat samples was determined to be 172 pg/mL in serum, 148 pg/mL in plasma (heparin), 133 pg/mL in plasma (EDTA), and 206 pg/mL in plasma (citrate).



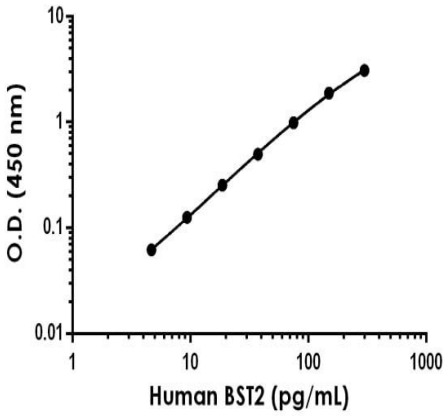
Interpolated concentrations of spiked BST2 in RPMI media and of native BST2 in cell extract samples.

The concentrations of BST2 were measured in duplicate and interpolated from the BST2 standard curve and corrected for sample dilution. Undiluted samples are as follows: RPMI media 50%, A431 cell extract 10 µg/mL, and HeLa cell extract 30 µg/mL. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2).



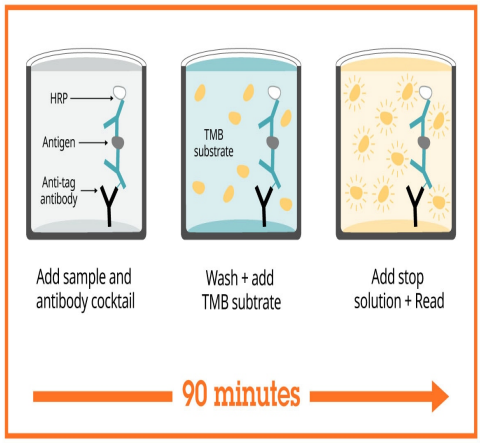
Serum from ten individual healthy human female donors was measured in duplicate.

Interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean BST2 concentration was determined to be 221 pg/mL with a range of 74 – 672 pg/mL.



Example of human BST2 standard curve in Sample Diluent NS.

The BST2 standard curve was prepared as described in Section 10. Background-subtracted data values (mean +/- SD) are graphed.

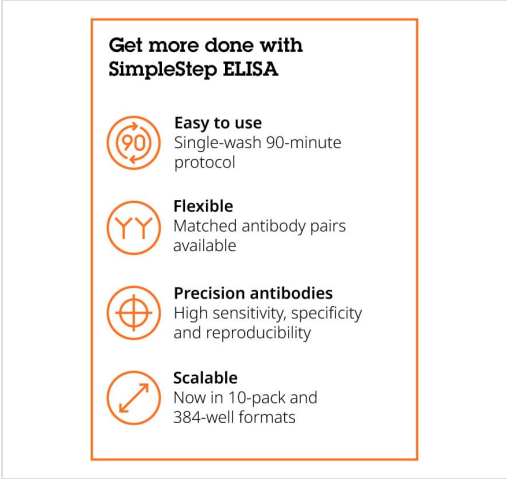


Sandwich ELISA - Human BST2 ELISA Kit (ab231931)

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.

Sandwich ELISA - Human BST2 ELISA Kit (ab231931)

To learn more about the advantages of recombinant antibodies see **here**.



Sandwich ELISA - Human BST2 ELISA Kit (ab231931)

To learn more about the advantages of SimpleStep ELISA® kits see **here**.

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

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