

Human RANK ELISA Kit ab277714

重组 SimpleStep ELISA

6 图像

概述

产品名称 人RANK ELISA试剂盒

检测方法 Colorimetric

精确度 批次内

样品	n	Mean	SD	CV%
Serum	8			4.8%

批次间

样品	n	Mean	SD	CV%
Serum	3			5.5%

样品类型 Serum, Cell culture media, Hep Plasma, EDTA Plasma, Cit plasma

检测类型 Sandwich (quantitative)

灵敏度 3.07 pg/ml

范围 15.63 pg/ml - 1000 pg/ml

检测时间 1h 30m

实验步骤 One step assay

种属反应性 **与反应:** Human

产品概述 Human RANK ELISA kit (ab277714) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Human RANK protein in human serum, plasma, and cell culture supernatant. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human RANK with 3.07 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.

说明 RANK, also known as TNFRSF11A or TRANCE, is a type 1 transmembrane protein receptor and is a member of the tumor necrosis factor receptor molecular subfamily. RANK binds RANKL and plays a key role in regulation of osteogenesis and specific immunity. ab277714 recognizes the soluble extracellular fragment of RANK.

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

性能

存放说明 Store at +4°C. Please refer to protocols.

组件	1 x 96 tests
10X Human RANK Capture Antibody	1 x 600µl
10X Human RANK Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent 5BI	1 x 6ml
Human RANK 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

功能 Receptor for TNFSF11/RANKL/TRANCE/OPGL; essential for RANKL-mediated osteoclastogenesis. Involved in the regulation of interactions between T-cells and dendritic cells.

组织特异性 Ubiquitous expression with high levels in skeletal muscle, thymus, liver, colon, small intestine and adrenal gland.

疾病相关 Defects in TNFRSF11A are the cause of familial expansile osteolysis (FEO) [MIM:174810]. FEO is a rare autosomal dominant bone disorder characterized by focal areas of increased bone remodeling. The osteolytic lesions develop usually in the long bones during early adulthood. FEO is often associated with early onset deafness and loss of dentition. Defects in TNFRSF11A are a cause of Paget disease of bone type 2 (PDB2) [MIM:602080]; also known as familial Paget disease of bone. PDB2 is a bone-remodeling disorder with clinical

similarities to FEO. Unlike FEO, however, affected individuals have involvement of the axial skeleton with lesions in the spine, pelvis and skull.

Defects in TNFRSF11A are the cause of osteopetrosis autosomal recessive type 7 (OPTB7) [MIM:612301]; also called osteoclast-poor osteopetrosis with hypogammaglobulinemia.

Osteopetrosis is a rare genetic disease characterized by abnormally dense bone, due to defective resorption of immature bone. The disorder occurs in two forms: a severe autosomal recessive form occurring in utero, infancy, or childhood, and a benign autosomal dominant form occurring in adolescence or adulthood. OPTB7 is characterized by paucity of osteoclasts, suggesting a molecular defect in osteoclast development. OPTB7 is associated with hypogammaglobulinemia.

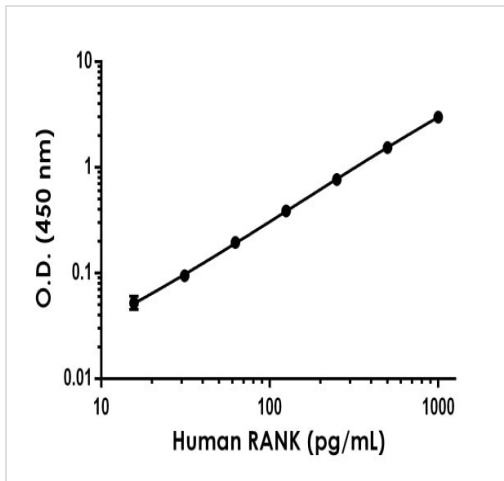
序列相似性

Contains 4 TNFR-Cys repeats.

细胞定位

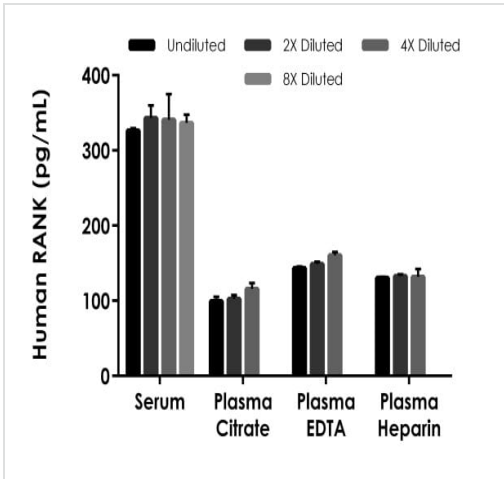
Membrane.

图片



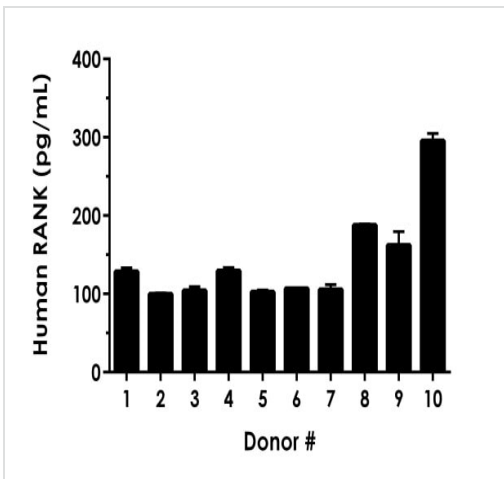
Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.

Example of human RANK standard curve in Sample Diluent NS. The RANK standard curve was prepared as described in Section 10.



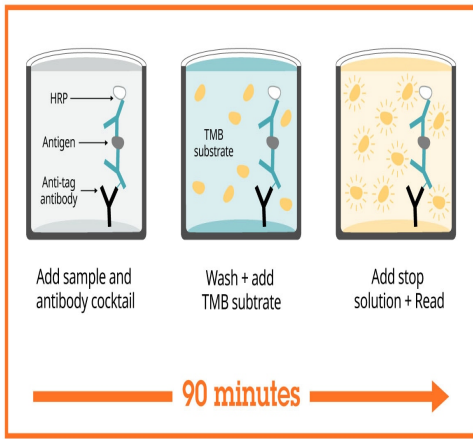
Undiluted samples are as follows: serum 50%, plasma (citrate) 50%, plasma (EDTA) 50%, and plasma (heparin) 50%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean RANK concentration was determined to be 336.7 pg/mL in serum, 106.0 pg/mL in plasma (citrate), 150.9 pg/mL in plasma (EDTA), and 131.7 pg/mL in plasma (heparin).

Interpolated concentrations of native RANK in human serum and plasma samples. The concentrations of RANK were measured in duplicates, interpolated from the RANK standard curves and corrected for



Interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean RANK concentration was determined to be 142.2 pg/mL with a range of 99.8 – 295.5 pg/mL.

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



Sandwich ELISA - Human RANK ELISA Kit
(ab277714)

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.

Powered by
recombinant antibodies

- Research with confidence**
Consistent and reproducible results
- Long-term and scalable supply**
Recombinant technology
- Success from the first experiment**
Confirmed specificity
- Ethical standards compliant**
Animal-free production

Recombinant Antibody Benefits

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

Get more done with
SimpleStep ELISA

- Easy to use**
Single-wash 90-minute protocol
- Flexible**
Matched antibody pairs available
- Precision antibodies**
High sensitivity, specificity and reproducibility
- Scalable**
Now in 10-pack and 384-well formats

Sandwich ELISA - Human RANK ELISA Kit
(ab277714)

To learn more about the advantages of SimpleStep ELISA[®] kits see [here](#).

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