

Human Osteoprotegerin ELISA Kit ab189580

SimpleStep ELISA

5 References [画像数 4](#)

製品の概要

製品名 Human Osteoprotegerin ELISA Kit

検出方法 Colorimetric

再現性 Intra-Assay (同時再現性)

サンプル	N	平均値	SD	CV%
Serum	8			6%

Inter-Assay (日差再現性)

サンプル	N	平均値	SD	CV%
Serum	3			9%

サンプルの種類 Cell culture supernatant, Serum, Hep Plasma, EDTA Plasma, Cit plasma

アッセイタイプ Sandwich (quantitative)

検出感度 11 pg/ml

検出範囲 31.25 pg/ml - 2000 pg/ml

添加回収試験 特定サンプルでの回収試験

サンプルの種類	平均 %	測定範囲
Serum	101	100% - 103%
Cell culture media	88	81% - 96%
Hep Plasma	89	84% - 92%
EDTA Plasma	98	86% - 104%
Cit plasma	88	86% - 90%

全工程の試験時間 1h 30m

ステップ One step assay

種交差性

交差種: Human

非交差種: Goat, Cow

製品の概要

Human Osteoprotegerin ELISA Kit (ab189580) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Osteoprotegerin protein in cell culture supernatant, cit plasma, edta plasma, hep plasma, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human Osteoprotegerin with 11 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.

特記事項

Human Osteoprotegerin (OPG), also known as Tumor necrosis factor receptor superfamily member 11B (TNFRSF11B), is a 46kDa glycoprotein member of the tumor necrosis factor receptor superfamily. This cytokine is a homodimer expressed and secreted by multiple adult tissues such as the lung, liver, spleen, prostate, ovary, adrenal gland and bone marrow. It plays a critical function in bone homeostasis by acting as a decoy receptor for TNFSF11/RANKL and for the receptor activator of nuclear factor-kappa-B ligand. OPG therefore decreases bone resorption by inhibiting osteoclast differentiation and activation of osteoclast and by stimulating osteoclast apoptosis.

OPG deficiency has been found in Juvenile Paget disease, a rare autosomal recessive osteopathy that presents in infancy and early childhood characterized by rapidly remodeling woven bone, osteopenia, debilitating fractures and deformities due to accelerated bone remodeling. OPG may also play a role in arterial calcification and high levels of OPG have been found to be an independent risk factor for cardiovascular disease and vascular mortality.

試験プラットフォーム

Microplate

製品の特性

保存方法

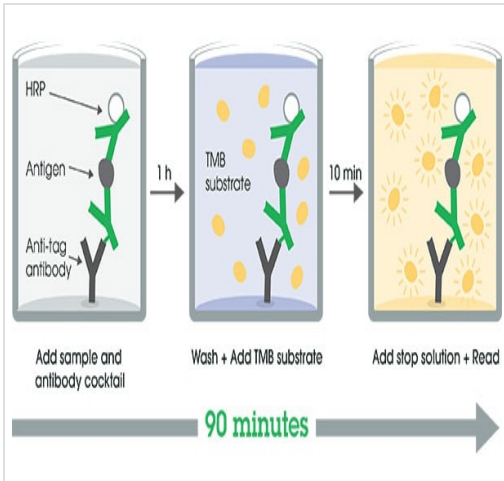
Store at +4°C. Please refer to protocols.

内容	1 x 96 tests
10X Human Osteoprotegerin Capture Antibody	1 x 600µl
10X Human Osteoprotegerin Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml

内容	1 x 96 tests
Antibody Diluent CPI - HAMA Blocker (ab193969)	1 x 6ml
Human Osteoprotegerin Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent 25BS	1 x 20ml
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

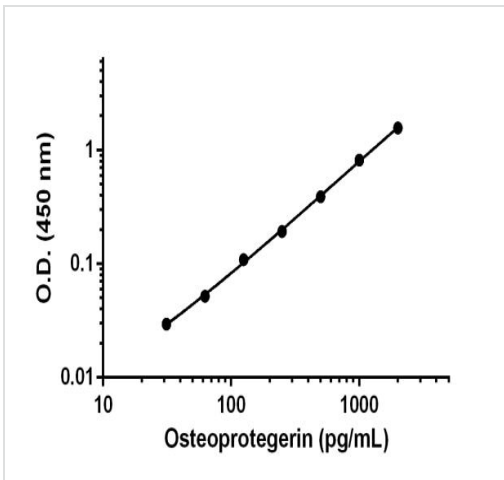
機能	Acts as decoy receptor for RANKL and thereby neutralizes its function in osteoclastogenesis. Inhibits the activation of osteoclasts and promotes osteoclast apoptosis in vitro. Bone homeostasis seems to depend on the local RANKL/OPG ratio. May also play a role in preventing arterial calcification. May act as decoy receptor for TRAIL and protect against apoptosis. TRAIL binding blocks the inhibition of osteoclastogenesis.
組織特異性	Highly expressed in adult lung, heart, kidney, liver, spleen, thymus, prostate, ovary, small intestine, thyroid, lymph node, trachea, adrenal gland, testis, and bone marrow. Detected at very low levels in brain, placenta and skeletal muscle. Highly expressed in fetal kidney, liver and lung.
関連疾患	Defects in TNFRSF11B are the cause of juvenile Paget disease (JPD) [MIM:239000]; also known as hyperostosis corticalis deformans juvenilis or hereditary hyperphosphatasia or chronic congenital idiopathic hyperphosphatasia. JPD is a rare autosomal recessive osteopathy that presents in infancy or early childhood. The disorder is characterized by rapidly remodeling woven bone, osteopenia, debilitating fractures, and deformities due to a markedly accelerated rate of bone remodeling throughout the skeleton. Approximately 40 cases of JPD have been reported worldwide. Unless it is treated with drugs that block osteoclast-mediated skeletal resorption, the disease can be fatal.
配列類似性	Contains 2 death domains. Contains 4 TNFR-Cys repeats.
翻訳後修飾	N-glycosylated. Contains sialic acid residues. The N-terminus is blocked.
細胞内局在	Secreted.

画像



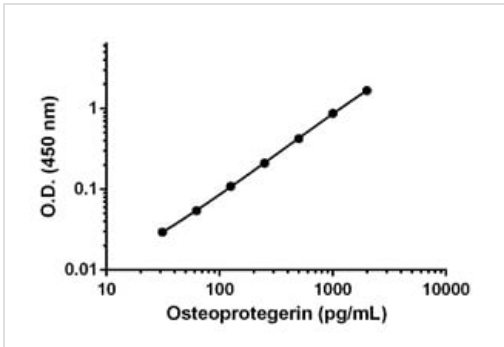
SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.

Other - Human Osteoprotegerin ELISA Kit
(ab189580)



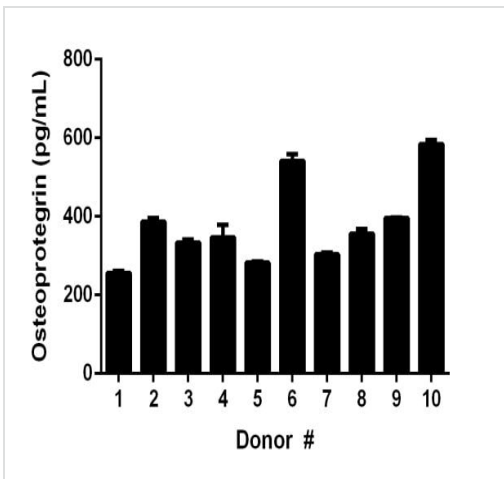
Background-subtracted data values (mean +/- SD) are graphed.

Example of Osteoprotegerin standard curve in
Sample Diluent 25BS.



Background-subtracted data values (mean +/- SD) are graphed.

Example of Osteoprotegerin standard curve in Sample Diluent NS.



Results were interpolated from the standard curve in Sample Diluent 25BS and corrected by sample dilution (1:2). The mean level of Osteoprotegerin is 378.8 pg/mL with a range of 256.5 – 584.5 pg/mL and a standard deviation of 106.7 pg/mL.

Ten individual healthy donors were evaluated for the presence of Osteoprotegerin in serum using this assay.

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