

Sclerostin Assays

Trust Your Results

A Novel Regulator in Bone Metabolism

Sclerostin, a protein product of the SOST gene, inhibits osteoblast activity via antagonism of the wnt signaling pathway and plays a key role in the regulation of bone formation. Reports show that sclerostin expression and/or circulating levels are elevated in osteoporosis, immobilization-induced bone loss, rheumatoid arthritis, multiple myeloma and bone metastases, making it a therapeutic target of great interest for the fields of bone and cancer research.^{1,2,3} There are indications that sclerostin levels are also elevated with chronic kidney disease, suggesting relevance in the study of renal insufficiency as well.^{4,5}

Human Sclerostin ELISA

- Highly referenced⁶
- Equivalent recovery with serum & plasma
- No cross reaction with SOST-DC1

Mouse Sclerostin ELISA

- Small sample volume
- Confirmed specificity
- Results in under 6 hours

A Potential Link Between Diabetes & Fracture Risk?

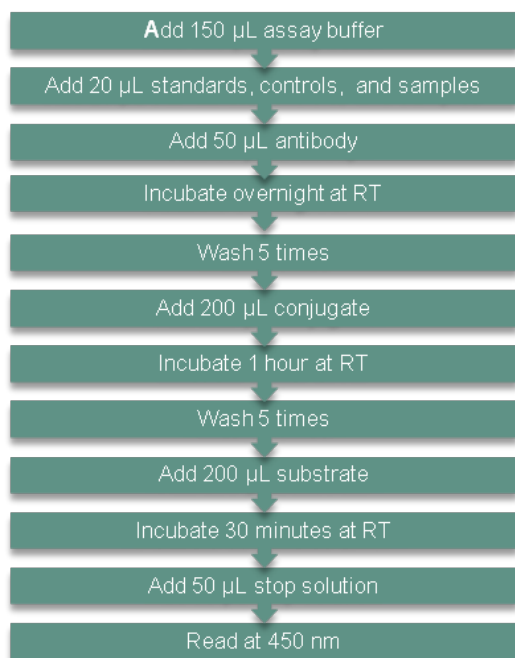
A growing body of evidence sheds light on sclerostin's novel role in the crosstalk between diabetes, obesity and bone metabolism. As the population continues to age, so does the prevalence of chronic diseases such as obesity, type 2 diabetes and osteoporosis. A number of recent reports have shown that sclerostin levels are increased and bone turnover markers decreased in type 2 diabetes.^{7,8,9,10} Type 2 diabetes is associated with increased fracture risk, and it appears that the wnt signaling pathway may be intimately involved, potentially at the level of insulin secretion from the pancreatic beta cells.

Featured Assays

Human Sclerostin ELISA

The measurement of serum sclerostin levels is a novel approach for studying the regulation of bone mass and may serve as a tool for better understanding the mechanisms behind certain bone disorders. Biomedica's Human Sclerostin ELISA, distributed by ALPCO, is a highly referenced kit for measurement of sclerostin in human samples and employs a six point standard curve with the inclusion of a control reagent.

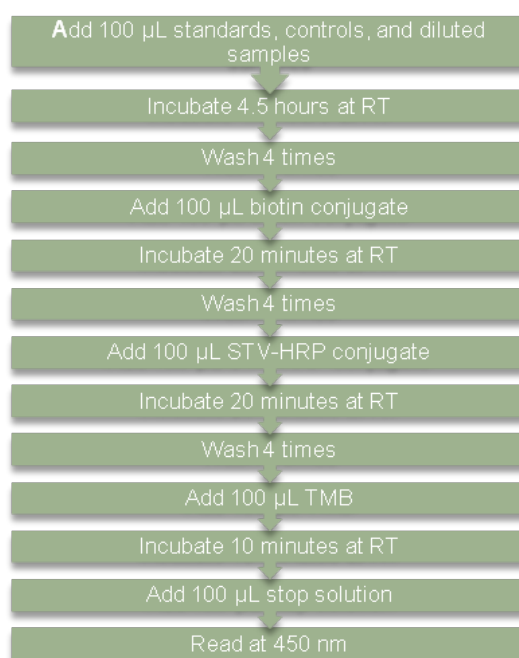
Catalog #:	04-BI-20492
Sample Type:	Serum, Plasma
Sample Size:	20 μ L
Range:	15 - 240 pM
Sensitivity:	2.6 pM
Incubation:	Overnight



Mouse Sclerostin ELISA

The Mouse Sclerostin ELISA is a highly sensitive assay utilizing a polyclonal antibody based sandwich format for detecting low circulating levels of sclerostin in mouse samples. Specificity of the assay was confirmed using sera from sclerostin knock out mice and the ELISA's small sample requirement facilitates measurement of multiple analytes from a single collection and/or multiple time points.

Catalog #:	41-SCLMS-E01
Sample Type:	Serum, Plasma
Sample Size:	15 μ L
Range:	37.5 - 1200 pg/mL
Sensitivity:	17.4 pg/mL
Incubation:	5 hours 20 minutes



References

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4. Drüeke TB & Lafage-Proust. Sclerostin: just one more player in renal bone disease? *Clin J Am Soc Nephrol*. Apr 2011; Vol 6, No 4: 700-703.
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6. Clarke BL & Drake MT. Clinical utility of serum sclerostin measurements. *BoneKey Reports*. 2013; Vol 2 No 361.
7. Gaudio A, Privitera F, Battaglia K, Torrisi V, Sidoti MH, Pulvirenti I, Canzonieri E, Tringali G, Fiore CE. Sclerostin levels associated with inhibition of the Wnt/ β -catenin signaling and reduced bone turnover in type 2 diabetes mellitus. *J Clin Endocrinol Metab*. 2012; Vol 97 No10:3744-50.
8. García-Martín A, Rozas-Moreno P, Reyes-García R, Morales-Santana S, García-Fontana B, García-Salcedo JA, Muñoz-Torres M. Circulating levels of sclerostin are increased in patients with type 2 diabetes mellitus. *J Clin Endocrinol Metab*. 2012; Vol 97 No 1: 234-41.
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Assays are For Research Use Only