

## References

### [27998 Human soluble \$\alpha\$ -Klotho Assay Kit - IBL](#)

No.	Field	Keywords	Published	Title
1	Bone metabolism	Osteomalacia	2018	<a href="#">Ectopic expression of Klotho in fibroblast growth factor 23 (FGF23)-producing tumors that cause tumor-induced rickets/osteomalacia (TIO). Kinoshita Y et al. Bone Rep. 2018;10:100192.</a>
2	Bone metabolism	Fracture risk	2016	<a href="#">Association of Serum Klotho with Loss of Bone Mineral Density and Fracture Risk in Older Adults. Chalhoub D et al. J Am Geriatr Soc. 2016;64(12):e304 - e308.</a>
3	Cardiovascular/ High blood pressure	CAD	2020	<a href="#">Association between serum levels of Klotho and inflammatory cytokines in cardiovascular disease: a case-control study. Martín-Núñez E et al. Aging (Albany NY). 2020 Jan 27;12(2):1952-1964.PMID: 31986490</a>
4	Cardiovascular/ High blood pressure	Stroke	2019	<a href="#">Klotho, fibroblast growth factor-23, and the renin-angiotensin system - an analysis from the PEACE trial. Bergmark BA et al. Eur J Heart Fail. 2019;21(4):462 - 470.</a>
5	Cardiovascular/ High blood pressure	Single nucleotide polymorphism	2018	<a href="#">A klotho gene single nucleotide polymorphism is associated with the onset of stroke and plasma klotho concentration. Yokoyama S et al. Aging (Albany NY). 2018;11(1):104 - 114.</a>
6	Cardiovascular/ High blood pressure	Hemodialysis	2017	<a href="#">Circulating Klotho Associates With Cardiovascular Morbidity and Mortality During Hemodialysis. Marçais C et al. J Clin Endocrinol Metab. 2017 Sep 1;102(9):3154-3161.PMID: 28402487</a>
7	Cardiovascular/ High blood pressure	Lipid metabolism	2016	<a href="#">Association of High-Density Lipoprotein Subclasses with Chronic Kidney Disease Progression, Atherosclerosis, and Klotho. Kanda E et al. PLoS One. 2016 Nov 18;11(11):e0166459.PMID: 27861640</a>
8	Cardiovascular/ High blood pressure	CAD	2014	<a href="#">Reduced Klotho is associated with the presence and severity of coronary artery disease. Navarro-González JF et al. Heart. 2014 Jan;100(1):34-40.PMID: 24165855</a>
9	Cardiovascular/ High blood pressure	Hemodialysis	2014	<a href="#">Prognostic value and link to atrial fibrillation of soluble Klotho and FGF23 in hemodialysis patients. Nowak A et al. PLoS One. 2014;9(7):e100688.</a>
10	Epidemiology	Mobility function	2020	<a href="#">Plasma Soluble <math>\alpha</math>Klotho, Serum Fibroblast Growth Factor 23, and Mobility Disability in Community-Dwelling Older Adults. Michelle Shardell et al. J Endocr Soc. 2020 Apr 30;4(5):bvz032.PMID: 32405607</a>
11	Epidemiology	Frailty	2019	<a href="#">Plasma Klotho and Frailty in Older Adults: Findings From the InCHIANTI Study. Michelle Shardell et al. J Gerontol A Biol Sci Med Sci. 2019 Jun 18;74(7):1052-1057.PMID: 29053774</a>
12	Epidemiology	Cognitive function	2016	<a href="#">Plasma klotho and cognitive decline in older adults: findings from the InCHIANTI study. Shardell M et al. J Gerontol A Biol Sci Med Sci. 2016;71:677-682.</a>
13	Epidemiology	Knee flexion and extension	2016	<a href="#">Low plasma klotho concentrations and decline of knee strength in older adults. Semba RD et al. J Gerontol A Biol Sci Med Sci. 2016;71:103-108</a>
14	Epidemiology	Physical performance	2015	<a href="#">Serum 25-hydroxyvitamin D, plasma klotho, and lower-extremity physical performance among older adults: findings from the InCHIANTI study. Shardell M et al. J Gerontol A Biol Sci Med Sci. 2015;70:1156-1162.</a>
15	Epidemiology	Grip strength	2012	<a href="#">Relationship of low plasma klotho with poor grip strength in older community-dwelling adults: the InCHIANTI study. Semba RD et al. Eur J Appl Physiol. 2012</a>
16	Epidemiology	CAD	2011	<a href="#">Plasma klotho and cardiovascular disease in adults. Semba RD et al. J Am Geriatr Soc. 2011;59:1596-1601.</a>
17	Epidemiology	Mortality risk	2011	<a href="#">Plasma klotho and mortality risk in older community-dwelling adults. Semba RD et al. J Gerontol A Biol Sci Med Sci. 2011;66:794-800.</a>
18	Growth hormone	GH administration	2018	<a href="#">Influence of exogenous growth hormone administration on circulating concentrations of <math>\alpha</math>-klotho in healthy and chronic kidney disease subjects: a prospective, single-center open case-control pilot study. Adema AY et al. BMC Nephrol. 2018;19(1):327.</a>
19	Growth hormone	Acromegaly	2014	<a href="#">Soluble Klotho protein as a novel serum biomarker in patients with acromegaly. Dąbrowska AM et al. Arch Med Sci. 2016;12(1):222 - 226.</a>
20	Growth hormone	GH deficiency in children	2014	<a href="#">Association between decreased klotho blood levels and organic growth hormone deficiency in children with growth impairment. Wolf I et al. PLoS One. 2014;9(9):e107174.</a>
21	Neurodegenerative	SVD	2019	<a href="#">Plasma Klotho concentration is associated with the presence, burden and progression of cerebral small vessel disease in patients with acute ischaemic stroke. Woo HG et al. PLoS One. 2019 Aug 9;14(8):e0220796.PMID: 31398214</a>
22	Neurodegenerative	White matter lesions	2018	<a href="#">Association between <math>\alpha</math>-Klotho and Deep White Matter Lesions in the Brain: A Pilot Case Control Study Using Brain MRI. Kuriyama N et al. J Alzheimers Dis. 2018;61(1):145-155.PMID: 29154273</a>

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23	Neurodegenerative	Alzheimer	2017	<a href="#">Systemic klotho is associated with KLOTHO variation and predicts intrinsic cortical connectivity in healthy human aging. Yokoyama JS et al. Brain Imaging Behav. 2017 Apr;11(2):391-400.PMID: 27714549</a>
24	Neurodegenerative	Inflammation	2016	<a href="#">Soluble <math>\alpha</math>-klotho is a potential biomarker associated with neuropsychiatric systemic lupus erythematosus. Ushigusa T et al. Clin Immunol. 2016 Apr;165:29-34.PMID: 26960950</a>
25	Neurodegenerative	Alzheimer	2013	<a href="#">Klotho in the cerebrospinal fluid of adults with and without Alzheimer's disease. Semba RD et al. Neurosci Lett. 2014 Jan 13;558:37-40. doi: 10.1016/j.neulet.2013.10.058. Epub 2013 Nov 7.PMID: 24211693</a>
26	Renal disease	Hemodialysis	2019	<a href="#">Randomised Clinical Trial of Ferric Citrate Hydrate on Anaemia Management in Haemodialysis Patients With Hyperphosphataemia: ASTRIO Study. Keitaro Yokoyama et al. Sci Rep. 2019 Jun 20;9(1):8877.PMID: 31222044</a>
27	Renal disease	Podocyte injuries	2018	<a href="#">Soluble klotho as a marker of renal fibrosis and podocyte injuries in human kidneys. Cho NJ et al. PLoS One. 2018;13(3):e0194617.</a>
28	Renal disease	Phosphate reabsorption	2017	<a href="#">Soluble klotho may be a marker of phosphate reabsorption. Tan SJ et al. Clin Kidney J. 2017;10(3):397 - 404.</a>
29	Renal disease	Kidney disease Stage	2015	<a href="#">Soluble <math>\alpha</math>-Klotho Serum Levels in Chronic Kidney Disease. Rotondi S et al. Int J Endocrinol. 2015;2015:872193.</a>
30	Renal disease	Type 2 Diabetes	2014	<a href="#">Soluble <math>\alpha</math>-Klotho as a Novel Biomarker in the Early Stage of Nephropathy in Patients with Type 2 Diabetes. Lee EY et al. PLoS One. 2014 Aug 1;9(8):e102984.PMID: 25084095</a>
31	Renal disease	Arterial stiffness	2013	<a href="#">A decreased level of serum soluble Klotho is an independent biomarker associated with arterial stiffness in patients with chronic kidney disease. Kitagawa M et al. PLoS One. 2013;8(2):e56695.PMID: 23431388</a>
32	Renal disease	CKD	2013	<a href="#">Fibroblast growth factor 23 and soluble klotho in children with chronic kidney disease. Wan M et al. Nephrol Dial Transplant. 2013 Jan;28(1):153-61.PMID: 23180879</a>
33	Renal disease	Kidney disease Stage	2013	<a href="#">Secreted Klotho and FGF23 in chronic kidney disease Stage 1 to 5: sequence suggested from a cross-sectional study. Pavik I et al. Nephrol Dial Transplant. 2013 Feb;28(2):352-9.PMID: 23129826</a>
34	Renal disease	Hemodialysis	2012	<a href="#">Effects of cinacalcet treatment on serum soluble Klotho levels in haemodialysis patients with secondary hyperparathyroidism Komaba H et al. Nephrol Dial Transplant. 2012 May;27(5):1967-9.PMID: 22140124</a>
35	Respiratory	Lung function	2019	<a href="#">Lower levels of <math>\alpha</math>-Klotho in serum are associated with decreased lung function in individuals with interstitial lung abnormalities. Buendia-Roldan I et al. Sci Rep. 2019 Jul 25;9(1):10801.PMID: 31346213</a>
36	Others	Blood kinetics	2019	<a href="#">The Organ Handling of Soluble Klotho in Humans. Picciotto D et al. Kidney Blood Press Res. 2019;44(4):715-726.PMID: 31430745</a>
37	Others	Stress	2019	<a href="#">Implication of alpha-Klotho as the predictive factor of stress. Nakanishi K et al. J Investig Med. 2019 Jul 19. pii: jim-2018-000977.PMID: 31324693</a>
38	Others	Blood kinetics	2018	<a href="#">The Pituitary Is a Candidate Organ That Modulates Circulating Klotho Levels. Sato T et al. J Endocr Soc. 2018;3(1):52 - 61. Published 2018 Nov 14.PMID: 30697600</a>
39	Others	Exersice	2018	<a href="#">High-intensity physical exercise increases serum <math>\alpha</math>-klotho levels in healthy volunteers. Tan Siet al. J Circ Biomark. 2018;7:1849454418794582.</a>
40	Others	Exersice	2018	<a href="#">Exercise training as S-Klotho protein stimulator in sedentary healthy adults: Rationale, design, and methodology. Amaro-Gahete FJ et al. Contemp Clin Trials Commun. 2018;11:10 - 19.</a>
41	Others	Smoking habit	2015	<a href="#">Klotho-related Molecules Upregulated by Smoking Habit in Apparently Healthy Men: A Cross-sectional Study. Nakanishi K et al. Sci Rep. 2015 Sep 18;5:14230.PMID: 26382974</a>
42	Others	Validation Study	2015	<a href="#">Diurnal variation and short-term pre-analytical stability of serum soluble <math>\alpha</math>-klotho in healthy volunteers: a pilot study. Tan SJ et al. Ann Clin Biochem. 2015 Jul;52(Pt 4):506-9.</a>
43	Others	Exersice	2014	<a href="#">Aerobic Exercise Training Increases Plasma Klotho Levels and Reduces Arterial Stiffness in Postmenopausal Women. Tomoko Matsubara et al. Am J Physiol Heart Circ Physiol. 2014 Feb;306(3):H348-55.PMID: 24322608</a>
44	Others	Established paper	2010	<a href="#">Establishment of sandwich ELISA for soluble alpha-Klotho measurement: Age-dependent change of soluble alpha-Klotho levels in healthy subjects. Yamazaki Y et al. Biochem Biophys Res Commun. 2010 Jul 30;398(3):513-8.PMID: 20599764</a>



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45	Others	Phosphate homeostasis	2009	<a href="#">Discovery of alpha-Klotho unveiled new insights into calcium and phosphate homeostasis Nabeshima Y et.al. Proc Jpn Acad Ser B Phys Biol Sci. 2009;85(3):125-41.PMID: 19282648</a>

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