

References

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



No.	Field	Keywords	Published	Title
1	Bone metabolism	Osteomalacia	2018	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.
2	Bone metabolism	Fracture risk	2016	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.
3	Cardiovascular/ High blood pressure	CAD	2020	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
4	Cardiovascular/ High blood pressure	Stroke	2019	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.
5	Cardiovascular/ High blood pressure	Single nucleotide polymorphism	2018	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.
6	Cardiovascular/ High blood pressure	Hemodialysis	2017	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
7	Cardiovascular/ High blood pressure	Lipid metabolism	2016	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: 27984447
8	Cardiovascular/ High blood pressure	CAD	2014	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
9	Cardiovascular/ High blood pressure	Hemodialysis	2014	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.
10	Epidemiology	Mobility function	2020	Plasma Soluble αKlotho, 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
11	Epidemiology	Frailty	2019	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
12	Epidemiology	Cognitive function	2016	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.
13	Epidemiology	Knee flexion and extension	2016	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
14	Epidemiology	Physical performance	2015	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.
15	Epidemiology	Grip strength	2012	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
16	Epidemiology	CAD	2011	Plasma klotho and cardiovascular disease in adults. Semba RD et al. J Am Geriatr Soc. 2011;59:1596-1601.
17	Epidemiology	Mortality risk	2011	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.
18	Growth hormone	GH administration	2018	Influence of exogenous growth hormone administration on circulating concentrations of α-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.
19	Growth hormone	Acromegaly	2014	Soluble Klotho protein as a novel serum biomarker in patients with acromegaly. Dąbrowska AM et al. Arch Med Sci. 2016;12(1):222 - 226.
20	Growth hormone	GH deficiency in children	2014	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.
21	Neurodegenerative	SVD	2019	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
22	Neurodegenerative	White matter lesions	2018	Association between α-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
23	Neurodegenerative	Alzheimer	2017	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

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24	Neurodegenerative	Inflammation	2016	Soluble α-klotho is a potential biomarker associated with neuropsychiatric systemic lupus erythematosus. Ushigusa T et al. Clin Immunol. 2016 Apr;165:29-34.PMID: 26960950
25	Neurodegenerative	Alzheimer	2013	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
26	Renal disease	Hemodialysis	2019	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
27	Renal disease	Podocyte injuries	2018	Soluble klotho as a marker of renal fibrosis and podocyte injuries in human kidneys. Cho NJ et al. PLoS One. 2018;13(3):e0194617.
28	Renal disease	Phosphate reabsorption	2017	Soluble klotho may be a marker of phosphate reabsorption. Tan SJ et al. Clin Kidney J. 2017;10(3):397 - 404.
29	Renal disease	Kidney disease Stage	2015	Soluble α-Klotho Serum Levels in Chronic Kidney Disease. Rotondi S et al. Int J Endocrinol. 2015;2015:872193.
30	Renal disease	Type 2 Diabetes	2014	Soluble α-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
31	Renal disease	Arterial stiffness	2013	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
32	Renal disease	CKD	2013	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
33	Renal disease	Kidney disease Stage	2013	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
34	Renal disease	Hemodialysis	2012	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
35	Respiratory	Lung function	2019	Lower levels of α-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
36	Others	Blood kinetics	2019	The Organ Handling of Soluble Klotho in Humans. Picciotto D et al. Kidney Blood Press Res. 2019;44(4):715-726.PMID: 31430745
37	Others	Stress	2019	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
38	Others	Blood kinetics	2018	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
39	Others	Exersice	2018	High-intensity physical exercise increases serum α-klotho levels in healthy volunteers. Tan Sjet al. J Circ Biomark. 2018;7:1849454418794582.
40	Others	Exersice	2018	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.
41	Others	Smoking habit	2015	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
42	Others	Exersice	2014	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
43	Others	Established paper	2010	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
44	Others	Phosphate homeostasis	2009	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