abcam

Product datasheet

Oxalate Assay Kit (Colorimetric) ab196990

8 References 3 Images

Overview

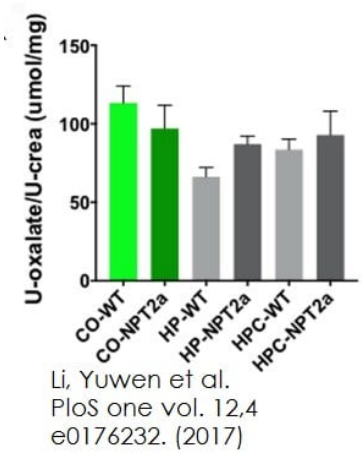
Product name	Oxalate Assay Kit (Colorimetric)
Detection method	Colorimetric
Sample type	Urine, Serum, Plasma, Tissue
Assay type	Quantitative
Sensitivity	< 20 µM
Assay time	2h 20m
Species reactivity	**Reacts with:** Mammals, Other species
Product overview	Oxalate Assay kit (Colorimetric) (ab196990) is an easy-to-use, sensitive and high throughput adaptable kit. In this assay, Oxalate reacts with oxalate converter and oxalate enzyme mix to form an intermediate that reacts in turn with a highly specific probe to generate color that can be detected at OD=450 nm. This product can detect Oxalate levels lower than 20 µM. Oxalate assay protocol summary: - add samples and standards to wells - add oxalate convertor and incubate for 1 hr - add reaction mix and incubate for 1 hr - analyze with microplate reader
Notes	This product is manufactured by BioVision, an Abcam company and was previously called K663 Oxalate (Oxalic Acid) Colorimetric Assay Kit. K663-100 is the same size as the 100 test size of ab196990. Oxalate ($C_2O_4^{2-}$), in the form of Oxalic acid is present in many foods and beverages (e.g. spinach, tea etc.). It accumulates in many plant tissues and play role in regulating pH, osmosis and calcium storage. In animals, oxalate is either absorbed from dietary intake or produced from glycolate metabolism in liver. Under normal conditions, the daily oxalate load can be excreted by kidney. However, hereditary defects can cause an increased level of oxalate, which leads to hyperoxaluria and results in the formation of kidney stones. Therefore, measurement of oxalate level is useful for the prevention, diagnosis and monitoring of kidney stones.
Platform	Microplate reader

Properties

Storage instructions Store at -20°C. Please refer to protocols.

Components	100 tests
Assay Buffer XXI	1 x 25ml
Developer Solution III	1 vial
Enzyme Mix IX	1 vial
Oxalate Converter	1 x 0.2ml
Buffer II	1 x 15ml
Oxalate Standard	1 vial

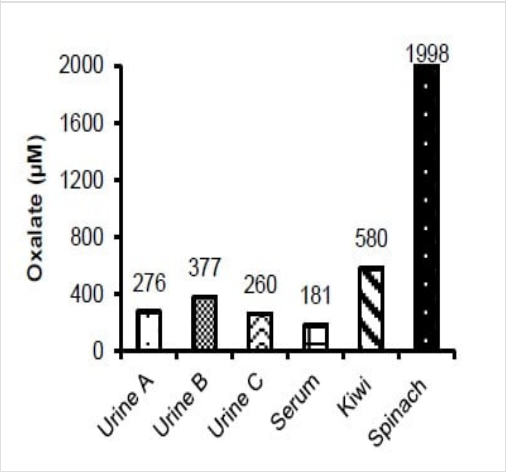
Images



Functional Studies - Oxalate Assay Kit (Colorimetric) (ab196990)

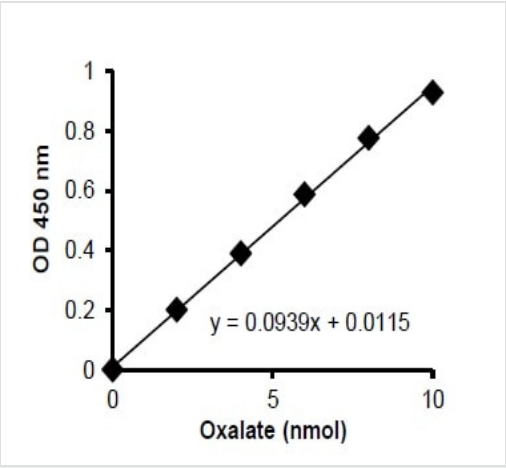
Li, Yuwen et al., PloS one?vol. 12,4 e0176232., Fig 2, doi:10.1371/journal.pone.0176232

8 weeks old mice were placed for 10 weeks on special egg-white based diets: HPC diet (High phosphate and calcium diet; 20% lactate, 2% calcium, 1.25% phosphate); HP diet (High phosphate diet; 0.6% calcium, 1.20% phosphate); CO diet (Control diet; 0.6% calcium, 0.3% phosphate); WT: wild type; Npt2a: Npt2a-/- mice. Oxylate was measured using 196990



Example data

Oxalate concentration in normal human urine (3 donors, 10 µL sample), normal human serum (10 µL), Kiwi lysate (10 µL) and Spinach lysate (10 µL).



Example data

Oxalate Standard Curve.

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