

Choline Assay Kit ab219944

[1 Image](#)

Overview

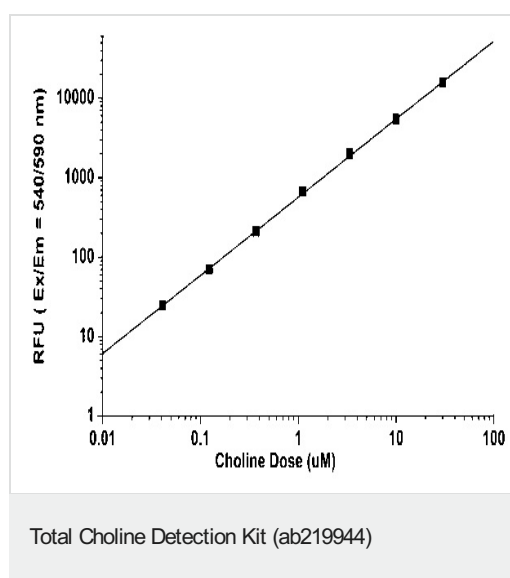
Product name	Choline Assay Kit
Detection method	Fluorescent
Sample type	Urine, Serum, Plasma, Other biological fluids, Cell Lysate, Tissue Lysate
Assay type	Quantitative
Sensitivity	40 nM
Species reactivity	Reacts with: Mammals, Other species
Product overview	<p>Total Choline Detection Kit (ab219944) provides a sensitive fluorescence-based assay for quantifying choline in cell and tissue lysates and biological fluids. The amount of choline is proportional to the concentration of hydrogen peroxide formed in the choline oxidase-mediated enzyme coupling reaction cycle, which in turn is detected with our proprietary Red Indicator. The increase in fluorescence can be easily detected at an optimal Ex/Em = 540/590 nm. The signal can also be read by absorbance at OD: 576 ± 5 nm, although the sensitivity of the assay is reduced 10-fold.</p> <p>The assay detects as little as 4 picomole choline in 100 µL assay volume (40 nM), making it one of the most sensitive assays available in the market.</p> <p>This product was previously known as Total Choline Detection Kit.</p>
Notes	<p>Choline is an essential nutrient. Choline and its metabolites play an important role in the structural integrity and signaling of cell membranes and cholinergic neurotransmission (choline synthesis). It is a major source of methyl group via its metabolite, trimethylglycine that participates in the S-adenosylmethionine synthesis pathways. Choline deficiency may cause liver disease, atherosclerosis and possibly neurological disorders. Despite its importance in the central nervous system as a precursor for acetylcholine and membrane phosphatidylcholine, the role of choline in mental illness has been little studied.</p>
Platform	Microplate reader

Properties

Storage instructions	Store at -20°C. Please refer to protocols.
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Components	200 tests
Assay Buffer	1 x 25ml
Choline Probe	2 vials
Choline Standard (2.8 mg)	1 x 2.8mg
DMSO	1 x 100µl
Red Dye	1 vial

Images



Typical Choline standard calibration curve. Choline dose response was measured on a 96 well solid black plate using a Gemini fluorescence microplate reader (Molecular Devices). As low as 40nM (4 picomole/well) of choline can be detected with 30 minutes incubation time (n=3).

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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