

ARG82198 Xanthine Oxidase Activity Assay Kit (Colorimetric)

Package: 100 tests
Store at: -20°C

Summary

Product Description	ARG82198 Xanthine Oxidase Activity Assay Kit (Colorimetric) can be used to measure Xanthine Oxidase activity in serum and cell lysate.
Tested Reactivity	Hu, Ms, Rat, All
Tested Application	FuncSt
Target Name	Xanthine Oxidase
Conjugation Note	Read at 570 nm (colorimetric), or 530/585 nm (fluorometric)
Sensitivity	OD: 0.03 U/L; FL: 0.01 U/L
Detection Range	0.03 - 25 U/L (colorimetric); 0.01 - 2.5 U/L (fluorometric)
Sample Type	serum and cell lysate
Sample Volume	10 µl
Alternate Names	EC 1.17.1.4; XOR; XO; Xanthine dehydrogenase/oxidase [Includes: Xanthine dehydrogenase; XD; EC 1.17.3.2; Xanthine oxidoreductase

Application Instructions

Application Note	Please note that this kit does not include a microplate.
Assay Time	20 min

Properties

Form	Liquid
Storage instruction	Store the kit at -20°C. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	XDH
Gene Full Name	xanthine dehydrogenase
Background	Xanthine dehydrogenase belongs to the group of molybdenum-containing hydroxylases involved in the oxidative metabolism of purines. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. Xanthine dehydrogenase can be converted to xanthine oxidase by reversible sulfhydryl oxidation or by irreversible proteolytic modification. Defects in xanthine dehydrogenase cause xanthinuria, may contribute to adult respiratory stress syndrome, and may potentiate influenza infection through an oxygen metabolite-dependent mechanism. [provided by RefSeq, Jan 2014]
Function	Key enzyme in purine degradation. Catalyzes the oxidation of hypoxanthine to xanthine. Catalyzes the oxidation of xanthine to uric acid. Contributes to the generation of reactive oxygen species. Has also

low oxidase activity towards aldehydes (in vitro). [UniProt]

PTM

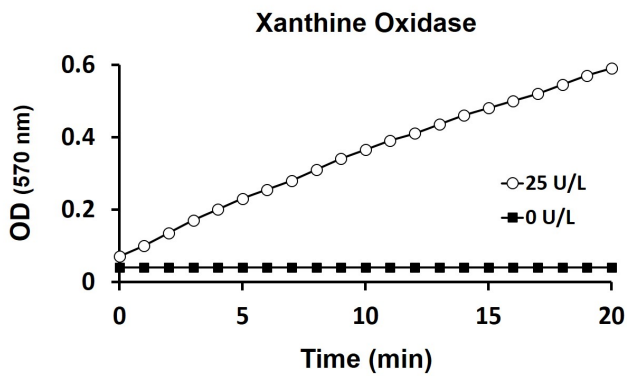
Subject to partial proteolysis; this alters the enzyme from the dehydrogenase form (D) to the oxidase form (O).

Contains sulfhydryl groups that are easily oxidized (in vitro); this alters the enzyme from the dehydrogenase form (D) to the oxidase form (O). [UniProt]

Cellular Localization

Cytoplasm. Peroxisome. Secreted. [UniProt]

Images



ARG82198 Xanthine Oxidase Activity Assay Kit (Colorimetric) enzyme kinetics graph

Kinetics of 0 and 25 U/L Xanthine Oxidase reaction, using ARG82198 Xanthine Oxidase Activity Assay Kit (Colorimetric).