

## Rat Xanthine dehydrogenase (XDH) ELISA Kit

Catalog No: #EK5813



Package Size: #EK5813-1 48T #EK5813-2 96T

Orders: order@signalwayantibody.com

Support: tech@signalwayantibody.com

## Description

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|--------------------|--|
| Product Name       | Rat Xanthine dehydrogenase (XDH) ELISA Kit   |
| Brief Description  | ELISA Kit  |
| Applications       | ELISA  |
| Species Reactivity | Rat ( <i>Rattus norvegicus</i> )   |
| Other Names        | XO; XOR; xanthene dehydrogenase xanthine oxidase xanthine oxidoreductase   |
| Accession No.      | P22985   |
| Uniprot            | P22985   |
| GeneID             | 497811;  |
| Storage            | <p>The stability of ELISA kit is determined by the loss rate of activity. The loss rate of this kit is less than 5% within the expiration date under appropriate storage condition.</p> <p>The loss rate was determined by accelerated thermal degradation test. Keep the kit at 37C for 4 and 7 days, and compare O.D.values of the kit kept at 37C with that of at recommended temperature. (referring from China Biological Products Standard, which was calculated by the Arrhenius equation. For ELISA kit, 4 days storage at 37C can be considered as 6 months at 2 - 8C, which means 7 days at 37C equaling 12 months at 2 - 8C).</p> |

## Application Details

Detect Range:

62.50-4000 pg/mL

Sensitivity:28.6 pg/mL

Sample Type:Serum, Plasma, Other biological fluids

Sample Volume: 1-200 µL

Assay Time:1-4.5h

Detection wavelength:450 nm

## Product Description

**Detection Method:**SandwichTest principle:This assay employs a two-site sandwich ELISA to quantitate XDH in samples. An antibody specific for XDH has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and anyXDH present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for XDH is added to the wells. After washing, Streptavidin conjugated Horseradish Peroxidase (HRP) is added to the wells. Following a wash to remove any unbound avidin-enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of XDH bound in the initial step. The color development is stopped and the intensity of the color is measured.**Product Overview:**Xanthine dehydrogenase belongs to the group of molybdenum-containing hydroxylases involved in the oxidative metabolism of purines. The enzyme is a homodimer. Xanthine dehydrogenase can be converted to xanthine oxidase by reversible sulfhydryl oxidation or by irreversible proteolytic modification.

The three substrates of this enzyme are xanthine, NAD<sup>+</sup>, and H<sub>2</sub>O, whereas its three products are urate, NADH, and H<sup>+</sup>. This enzyme belongs to the family of oxidoreductases, to be specific, those acting on CH or CH<sub>2</sub> group with NAD<sup>+</sup> or NADP<sup>+</sup> as acceptor. Defects in xanthine dehydrogenase cause xanthinuria, may contribute to adult respiratory stress syndrome, and may potentiate influenza infection through an oxygen metabolite-dependent mechanism.

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Note: This product is for in vitro research use only