

## Rat Xanthine Dehydrogenase (XDH) ELISA Kit | XDH elisa kit

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CATALOG #  
**AAA330136**

REACTIVITY  
**Rat**

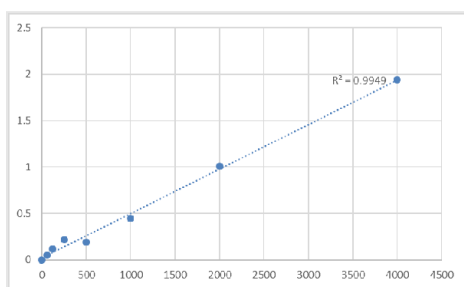
### PRODUCT SYNONYMS

Xanthine Dehydrogenase (XDH); Rat Xanthine Dehydrogenase (XDH) ELISA Kit; XDH; XO; XOR; xanthene dehydrogenase; xanthine oxidase; xanthine oxidoreductase; XDH elisa kit

### PRODUCT SPECIFICATIONS

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| Reactivity              | Rat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Specificity             | Rat Xanthine dehydrogenase (XDH) ELISA Kit has high sensitivity and excellent specificity for detection of Rat XDH. No significant cross-reactivity or interference between Rat XDH and analogues was observed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Sequence Length         | 1331                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Assay Type              | Sandwich ELISA (Quantitative)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Samples                 | Cell Culture Supernatants, Serum, Plasma, Other Biological Fluids                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Detection Method        | Colorimetric                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Usage Notes             | <ul style="list-style-type: none"> <li>* Do not mix components from different kit lots or use reagents beyond the kit expiration date.</li> <li>* Allow all reagents to warm to room temperature for at least 30 minutes before opening.</li> <li>* Pre-rinse the pipet tip with reagent, use fresh pipet tips for each sample, standard and reagent to avoid contamination.</li> <li>* Unused wells must be kept desiccated at 4 degree C in the sealed bag provided.</li> <li>* Mix Thoroughly is very important for the result. It is recommended using low frequency oscillator or slight hand shaking every 10 minutes.</li> <li>* It is recommended that all samples and standards be assayed in duplicate or triplicate.</li> </ul> |
| Preparation and Storage | Store at 2-8 degree C.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

### IMAGES



**Standard Curve (Sample)**

Fig.1. Rat Xanthine dehydrogenase (XDH) Standard Curve.

ADDITIONAL INFORMATION

|                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| Related Product Information for XDH elisa kit | <p>Description: This Rat Xanthine dehydrogenase (XDH) ELISA Kit 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 any XDH 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.</p> <p>Background: 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+, and H2O, whereas its three products are urate, NADH, and H+. This enzyme belongs to the family of oxidoreductases, to be specific, those acting on CH or CH2 group with NAD+ or NADP+ 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.</p> |
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NCBI AND UNIPROT INFORMATION

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|----------------------------------|--------------------------------|
| NCBI GI #                        | 8394544                        |
| NCBI GeneID                      | 497811                         |
| NCBI Accession #                 | NP_058850.1                    |
| NCBI GenBank Nucleotide #        | NP_058850.1                    |
| UniProt Accession #              | P22985                         |
| NCBI Official Full Name          | xanthine dehydrogenase/oxidase |
| NCBI Official Synonym Full Names | xanthine dehydrogenase         |
| NCBI Official Symbol             | Xdh                            |
| NCBI Official Synonym Symbols    | XOR                            |
| NCBI Protein Information         | xanthine dehydrogenase/oxidase |
| UniProt Protein Name             | Xanthine dehydrogenase/oxidase |
| UniProt Gene Name                | Xdh                            |
| UniProt Synonym Gene Names       | XD; XO; XOR                    |
| UniProt Entry Name               | XDH_RAT                        |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.