FOR RESEARCH USE ONLY!

Immobilized Catalase Beads

02/15

Store at 4°C. Do not freeze.

Cat. No.: 7931-1, 10 **1, 10 ml of beads (50% suspension in PBS)**

Salient Features:

Bead content:	1 or 10 ml of 50% slurry of Catalase Agarose Beads in PBS.
Sample Capacity:	5 and 50 ml of samples respectively.
Sample Compatibility:	Urine, serum, plasma or cellular extract.
Activity:	Removal of hydrogen peroxide interference from biological samples for downstream analyses.

Description:

BioVision's Immobilized Catalase beads are the ideal solution for HTP preparation of samples containing hydrogen peroxide or unwanted analytes which generate hydrogen peroxide that interferes with downstream analyses. Immobilized Catalase beads are prepared by proprietary covalent coupling of Catalase to 6% cross-linked agarose beads. The coupling technique is optimized to give a high yield and recovery of Catalase activity as well as to ensure long term stability of the immobilized enzyme.

Applications:

- The immobilized catalase beads can be used to eliminate or reduce sample background generated from hydrogen peroxide in assays that also use hydrogen peroxide for signal detection. Centrifugation to remove the immobilized catalase beads will prevent interference of catalase in assays that use hydrogen peroxide/HRP based mechanisms for detection.
- If unwanted interfering substances are removed during sample prep by oxidation, the reaction can be carried out to completion with simultaneous removal of hydrogen peroxide

User Supplied Reagents and Equipments:

- 96-well polypropylene plate
- Centrifuge for 96-well plates

Protocol

1. Mix beads to generate homogeneous 50% suspension.
2. Add 10 µl of the 50 % slurry of the immobilized catalase beads to 50 µl sample of interest.
3. Incubate the sample at room temperature for fifteen minutes.
4. Spin down the sample at 1000 x g for a minute at RT to remove the beads.
5. Collect the supernatant and use for downstream analyses.

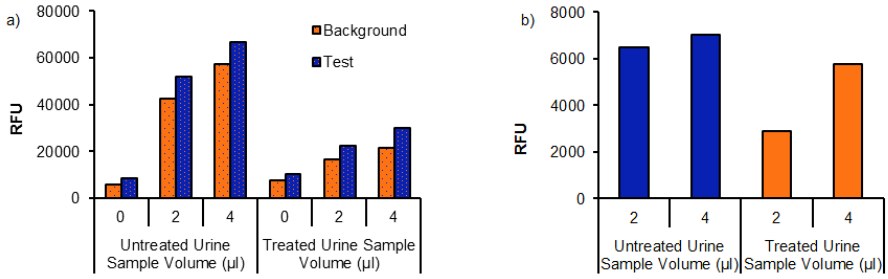

Figure: **Immobilized Catalase beads minimize hydrogen peroxide background in urine adenosine measurement:** Urine adenosine was measured using BioVision's K327 (Adenosine Fluorometric Assay Kit) in 2x diluted -untreated and -treated (immobilized catalase beads + enzyme mix for K327) urine sample. There is a considerable decrease in the sample background in the treated urine as compared to the untreated urine (fig. a). After background subtraction, linearity across sample volume can be observed in the treated urine sample, but not in the untreated urine sample (fig. b). In the K327 assay, intrinsic hydrogen peroxide and other substrates in the urine sample that also generate hydrogen peroxide are contributing to the background and the immobilized Catalase beads is minimizing such background.

RELATED PRODUCTS:

Catalase, human recombinant (7362)
Ready-to-Use Ni-IDA Spin Purification Kit (K6567-25)
Hi-Bind™ Ni QR Agarose Beads (6562)
EZ-Desalt™ Spin Desalting Columns (6564-25)
10K Spin Column (1997)
Ready-to-use Ni QR Agarose Beads Buffer Kit (K6563-3)
Protein G-Sepharose Column (6518)
Protein A/G-Sepharose Column (6528)
Protein A/G/L-Sepharose Column (6548)
Catalase, human erythrocytes (4712)
Streptavidin-Sepharose Beads (6565-2, -5, -10)
Ready-to-use Ni QR Agarose Beads Buffer Kit (6563-3)
Multipurpose Mini Spin Columns (6572-50)
Glutathione Sepharose (6555)
Protein A-Sepharose Column (6508)
Protein L-Sepharose Column (6538)
Adenosine Fluorometric Assay (K327)

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