CREATIVE BIOMART®
Assay Kit

Eosinophil Peroxidase Fluorometric Detection Kit

Product Information

Cat.No. Kit-0327

Description

Eosinophil peroxidase (EPO) is the most abundant enzyme found in eosinophils. It is the major cytotoxic agent released by activated eosinophils and uses hydrogen peroxide to generate reactive oxidants from halides and pseudo halide thiocyanate. Eosinophils peroxidase has been shown to have antimycobacterial activity, however it is also implicated in tissue damage that occurs in asthma and other diseases. Currently, the function of eosinophil involvement in the immune response is being redefined. Once considered a cell involved in host protection of parasitic infection, eosinophils multiple functions as leukocytes involved in the initiation and propagation of diverse inflammatory responses is being investigated. Eosinophils are further involved as modulators of innate and adaptive immunity.

Applications

1. Detection of EPO activity in isolated eosinophils.2. Functional studies of eosinophil degranulation.3. In-vitro eosinophil chemotaxis studies.

Usage

1. We do not recommend using this kit for eosinophil tissue infiltration experiments (unless eosinophils can be isolated from tissue digests) as myeloperoxidase (neutrophil) contamination will interfere with EPO measurement. 2. For Research use only. Not for use in diagnostic procedures.3. Practice safe laboratory procedures by wearing protective clothing and eyewear.4. The fluorescent product of the detection reagent is not stable in the presence of thiols (DTT or 2-mercaptoethanol). Keep these reactants below 10mM. If you are using your own buffer, keep the reaction between pH 7.0-8.0 (optimal pH 7.4).5. NADH and glutathione (reduced form: GSH) may interfere with the assay.See Technical note 1.

Storage

1. Short term (several weeks): 4-8°C and away from light. 2. Long term: see individual components.3. Once a vial of the Detection reagent is opened, it should be used promptly since it is subject to oxidation by air.

Tel: 1-631-559-9269 1-516-512-3133
Email:info@creative-biomart.org
Fax:1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

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Kit Components

Reagent-Storage Temperature1. Detection Reagent: 1 Vial, -20°C;2. 10X Assay Buffer: 60mL, 2-8°C;3. Hydrogen Peroxide: 1000µL of a Stabilized Solution, 2-8°C;4. Eosinophil Peroxidase: 1 Vial (100µL at 10Units/mL), 2-8°C

Features & Benefits

1. Can monitor multiple time points to follow kinetics.2. One-step, no wash assay.3. Adaptable for High Throughput format.4. Highly Sensitive.5. Applications-Fluorescent Plate Reader.

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