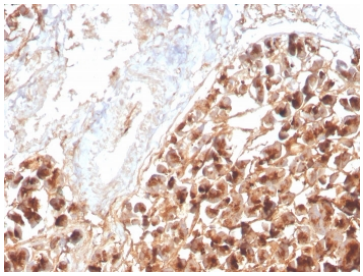
Recombinant Eosinophil Peroxidase Antibody rEPO104 / Recombinant Mouse MAb [clone rEPO104] (V8515)

Catalog No.	Formulation	Size
V8515-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8515-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8515SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

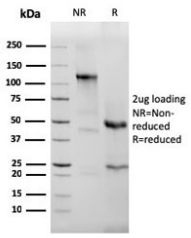
Recombinant MOUSE MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rEPO104
Purity	Protein G affinity chromatography
UniProt	P11678
Localization	Cytoplasmic
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 minutes at RT Flow cytometry: 0.5-1ug/million cells Immunofluorescence: 0.5-1ug/ml
Limitations	This Recombinant Eosinophil Peroxidase Antibody rEPO104 is available for research use only.



Recombinant Eosinophil Peroxidase Antibody rEPO104 by IHC in Human Pancreas. Immunohistochemistry staining of FFPE human pancreas tissue using recombinant mouse monoclonal Eosinophil Peroxidase antibody rEPO104. Strong brown immunoreactivity is visible in numerous cells within the examined tissue, with predominantly granular cytoplasmic staining. The staining pattern is consistent with detection of eosinophil-associated EPX protein. Heat-induced epitope retrieval was performed by boiling tissue sections in 10 mM Tris with 1 mM EDTA, pH 9, for 20 minutes, followed by cooling before antibody incubation.



Recombinant Eosinophil Peroxidase Antibody rEPO104 by SDS-PAGE Under Reducing and Non-Reducing Conditions. SDS-PAGE analysis of purified, BSA-free recombinant mouse monoclonal Eosinophil Peroxidase antibody rEPO104, with 2 ug of antibody loaded per lane. Under non-reducing (NR) conditions, the intact antibody migrates predominantly near 150 kDa. Under reducing (R) conditions, the antibody separates into heavy and light chains at approximately 50 kDa and 25 kDa, respectively. The results demonstrate the structural integrity and purity of the recombinant antibody used to detect EPX, an eosinophil-specific granule protein.

Description

Recombinant Eosinophil Peroxidase Antibody rEPO104 recognizes eosinophil peroxidase (EPX), a heme-containing enzyme stored in the cytoplasmic granules of eosinophils. Encoded by the EPX gene, this protein is a major component of eosinophil secondary granules and contributes to innate immune defense through the generation of reactive oxidants. Eosinophil peroxidase is expressed predominantly in eosinophils, making it a useful marker for identifying these granulocytes in tissues and investigating their involvement in inflammatory responses.

Eosinophils are specialized immune cells involved in host defense against parasitic infections, allergic inflammation, and tissue remodeling. Following activation, eosinophils release granule proteins through regulated degranulation or other cellular processes. These proteins include eosinophil peroxidase, major basic protein, eosinophil cationic protein, and eosinophil-derived neurotoxin. Together, they contribute to antimicrobial activity, immune signaling, and interactions with surrounding tissues.

EPX belongs to the mammalian heme peroxidase family, which also includes myeloperoxidase, lactoperoxidase, and thyroid peroxidase. The mature enzyme consists of heavy and light chains generated through proteolytic processing of a precursor protein. Eosinophil peroxidase uses hydrogen peroxide to oxidize halide and pseudohalide substrates, producing reactive species capable of damaging microorganisms. However, excessive enzyme release can also contribute to oxidative stress and tissue injury during persistent inflammation.

Elevated eosinophil accumulation and degranulation are associated with allergic asthma, eosinophilic gastrointestinal disorders, chronic rhinosinusitis, and hypereosinophilic syndromes. Detection of EPX can help characterize eosinophil infiltration and investigate the contribution of eosinophil granule proteins to inflammatory pathology. Immunohistochemistry provides information about eosinophil distribution in tissue sections, while immunofluorescence and flow cytometry support investigations of cellular expression and eosinophil populations.

Recombinant Eosinophil Peroxidase Antibody rEPO104 is a recombinant mouse monoclonal antibody recognizing human EPX. Recombinant production preserves a defined antibody sequence and supports consistent clone identity across production batches. This antibody is available from NSJ Bioreagents for research involving eosinophil biology, allergic inflammation, and immune-mediated tissue injury.

An EPX Antibody provides a useful reagent for studying eosinophil-associated inflammatory responses and the biological functions of eosinophil peroxidase.

Application Notes

Optimal dilution of the Recombinant Eosinophil Peroxidase Antibody rEPO104 should be determined by the researcher.

Immunogen

Human eosinophils from a patient with hypereosinophilic syndrome were used as the immunogen for the Recombinant Eosinophil Peroxidase Antibody rEPO104.

Storage

Store the Recombinant Eosinophil Peroxidase Antibody rEPO104 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

EPX antibody, Eosinophil Peroxidase antibody, Eosinophil Peroxidase Heavy Chain antibody, Eosinophil Peroxidase Light Chain antibody, Eosinophil Granule Peroxidase antibody

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