abcam

ab199005

Anti-EPX antibody [EPO104]

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.05% Sodium azide Constituents: PBS, 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing EPX protein. The exact immunogen used to generate this antibody is proprietary information. Database link P11678
Clone number	EPO104
Purification technique	Affinity purification Protein G
Light chain type	kappa
Concentration	0.2 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	purified from Bioreactor Concentrates

Reactivity data

Flow Cyt

Expected

Species	Human
Dilution info	-

Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

ICC/IF

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-Fr

Expected

Species	Human
Dilution info	-
Notes	30 mins room temperature.

Target data

See full target information EPX

Function	Mediates tyrosine nitration of secondary granule proteins in mature resting eosinophils. Shows significant inhibitory activity towards Mycobacterium tuberculosis H37Rv by inducing bacterial fragmentation and lysis.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot

Storage information	Avoid freeze / thaw cycle

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	EPX also known as eosinophil peroxidase or e p x is an enzyme with a molecular mass of approximately 71 kDa. This enzyme is mainly expressed in eosinophils a type of white blood cell involved in the immune response. EPX is located in the granules of eosinophils and it plays a role in the catalysis of halide ions and hydrogen peroxide to produce hypohalous acids which are potent antimicrobial agents. These acids contribute to the killing of bacteria and other pathogens making the enzyme a critical component of the immune system.
Biological function summary	Eosinophil peroxidase participates in the body's defense against parasitic infections and allergic reactions. It is not known to be a part of a larger protein complex but it does interact with other proteins within the immune response setting. EPX helps in generating reactive oxygen species which have antimicrobial properties and are important in immune signaling pathways. Although it can lead to tissue damage when overproduced its controlled activity is necessary for effective immune function.
Pathways	Eosinophil peroxidase's activity intersects with the respiratory burst pathway and the detoxification pathway. The enzyme contributes to the formation of reactive oxygen species in the respiratory burst pathway which is important for pathogen destruction. EPX is also connected with enzymes like myeloperoxidase (MPO) that function similarly in the immune response though EPX is more specific to eosinophils. This specialization makes it an important player in eosinophil-associated diseases and disorders.
Associated diseases and disorders	Eosinophil peroxidase has links to asthma and allergic diseases. Its activity in producing reactive oxygen species and hypohalous acids can exacerbate airway inflammation in asthma resulting in tissue damage. Additionally EPX has been studied in the context of autoimmune conditions as its dysregulated activity may contribute to inflammation. Its interaction with other proteins like myeloperoxidase could also influence such diseases highlighting the enzyme's role in pathological processes beyond its beneficial antimicrobial functions.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

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