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Anti-EPX HC Antibody

Catalog # AP53812

Product Information

Application	WB, IF/IC
Primary Accession	P11678
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	81040

Additional Information

Gene ID	8288
Other Names	EPER; EPO; EPP; Eosinophil peroxidase; EPO
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human EPX HC. The exact sequence is proprietary.
Dilution	WB~~1/500 - 1/1000 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

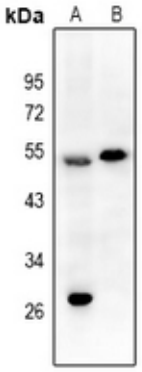
Protein Information

Name	EPX (HGNC:3423)
Function	Heme-containing oxidoreductase that catalyzes the oxidation of small anions, such as nitrite, halides (e.g bromide and chloride (at pH 6.5)) and pseudohalides (e.g thiocyanate) by using hydrogen peroxide to generate the corresponding reactive species hypobromite, hypochlorite, hypothiocyanous acid, and nitrogen dioxide (PubMed:11013238, PubMed:11112545, PubMed:12540536, PubMed:7852368). Also oxidizes thiocyanate (SCN(-)) to cyanate (OCN(-)) (PubMed:11112545). Functionally involved in inflammatory responses and exhibits antimicrobial activity (PubMed:12540536, PubMed:27587397). Can also oxidize amino acid residues on proteins and generate bromination, nitration and carbamoylation post-translational modifications, respectively (PubMed:18694936, PubMed:27587397). Mediates the nitration of tyrosine (3-nitrotyrosine) which is only observed in secondary granule proteins in mature resting eosinophils in the presence of the cosubstrates, hydrogen peroxide and nitrite (PubMed:18694936). Mediates oxidation of tyrosine residues on proteins in eosinophils to form brominating species, 3-bromotyrosine and 3, 5-dibromotyrosine in the presence of

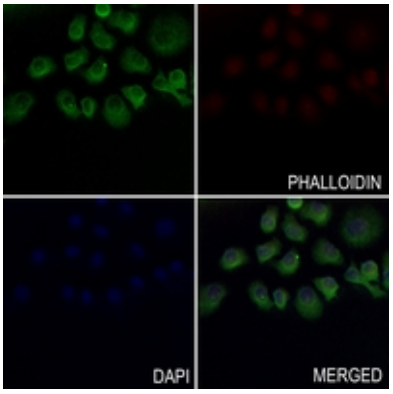
hydrogen peroxide and bromide (By similarity). Promotes protein carbamoylation at sites of inflammation during asthma by using thiocyanate and hydrogen peroxide to form cyanate which carbamoylates lysine residues to form homocitrulline (PubMed:27587397).

Cellular Location Cytoplasmic granule. Note=Cytoplasmic granules of eosinophils.

Images



Western blot analysis of EPX HC expression in mouse lung (A), rat heart (B) whole cell lysates. (Predicted band size: 81 kD; Observed band size: 53 kD)



Immunofluorescent analysis of EPX HC staining in SGC7901 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

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