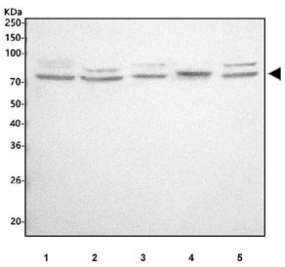
ALOX12 Antibody / 12S-lipoxygenase (RQ8685)

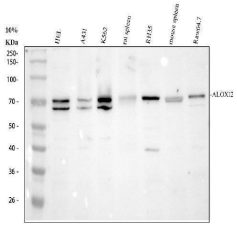
Catalog No.	Formulation	Size
RQ8685	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

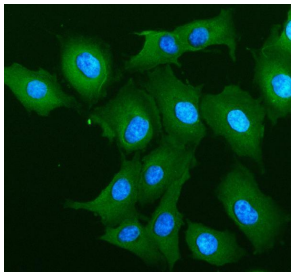
Availability	1-3 days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity chromatography
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P18054
Applications	Western blot: 1-2ug/ml ELISA: 0.1-0.5ug/ml Immunofluorescence: 5ug/ml
Limitations	This ALOX12 antibody is available for research use only.



ALOX12 Antibody Human, Rat and Mouse WB. Western blot testing of 1) human A549, 2) human MCF7, 3) human Jurkat, 4) rat RH35, and 5) mouse RAW264.7 cell lysates with ALOX12 antibody. A distinct immunoreactive band is detected at approximately 76 kDa in all samples, consistent with the predicted molecular weight of 12S-Lipoxygenase (ALOX12). The results demonstrate cross-species detection of this arachidonic acid-metabolizing enzyme, which generates bioactive lipid mediators involved in platelet activation, inflammatory signaling, oxidative stress, and regulation of cellular responses.



ALOX12 Antibody Human, Rat and Mouse WB. Western blot testing of 1) human HeLa, 2) human A431, 3) human K562, 4) rat spleen, 5) rat RH35, 6) mouse spleen, and 7) mouse RAW264.7 cell lysates with ALOX12 antibody at 0.5 ug/ml. A prominent immunoreactive band is detected at approximately 76 kDa, consistent with the predicted molecular weight of 12S-Lipoxygenase (ALOX12). The results demonstrate cross-species detection of this lipid-metabolizing enzyme, which catalyzes the oxygenation of arachidonic acid to generate bioactive lipid mediators involved in platelet function, inflammation, oxidative stress, and cellular signaling.



ALOX12 Antibody A549 Cell IF. Immunofluorescent staining of A549 cells with ALOX12 antibody (green). Enzymatic antigen retrieval was performed for 15 minutes prior to staining. Nuclei are counterstained with DAPI (blue). ALOX12 immunoreactivity is observed predominantly within the cytoplasm, consistent with the expected localization of 12S-Lipoxygenase (ALOX12), an arachidonic acid-metabolizing enzyme that catalyzes the formation of bioactive lipid mediators involved in platelet activation, inflammatory signaling, oxidative stress, and regulation of cellular responses.

Description

ALOX12, Arachidonate 12-lipoxygenase, is an enzyme that in humans is encoded by the ALOX12 gene. By fluorescence in situ hybridization, the ALOX12 gene is located in band 17p13.1. The gene consists of 14 exons with 13 introns and spans approximately 15 kb of DNA Arachidonate 12-lipoxygenase introduces a molecular oxygen into the C-12 position of arachidonic acid to produce 12(S)-hydroperoxy-5,8,10,14-eicosatetraenoic acid. The major pathway of arachidonic acid metabolism in human platelets proceeds via a 12-lipoxygenase enzyme. Expression of the LOG12 gene was detected in human erythroleukemia cells, platelets, and human umbilical vein endothelial cells by reverse transcription-PCR analysis.

Learn more about ALOX12 function, lipid peroxidation and oxidative stress on our ALOX12 Antibody / Lipid Peroxidation Enzyme Antibody page.

Application Notes

Optimal dilution of the ALOX12 antibody should be determined by the researcher.

Immunogen

An E.coli-derived human recombinant protein (amino acids A186-R628) was used as the immunogen for the ALOX12 antibody.

Storage

After reconstitution, the ALOX12 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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