

Monoclonal antibody against human 12-Lipoxygenase (12-LOX/ALOX12)

Product No. ADG0045

Description

12-Lipoxygenase (12-LOX) also known as Platelet-type 12-Lipoxygenase or arachidonate 12-lipoxygenase (ALOX12).

The enzyme acts on different polyunsaturated fatty acid substrates to generate bioactive lipid mediators including eicosanoids and lipoxins.

12-LOX protein plays an important role in inflammation and oxidation, while abnormal DNA methylation and genetic variants of 12-LOX are associated with various human diseases and pathological phenotypes, such as cardiovascular disease, diabetes, neurodegenerative diseases, respiratory system disease, cancer, infection, etc.

Properties

The antibody reacts with both native and recombinant 12-Lipoxygenase.

Preparation

The monoclonal antibody ADG0045 (clone no. 25.20) is a murine monoclonal antibody recognizing human 12-Lipoxygenase. Mice were immunized with purified recombinant full-length human 12-LOX, expressed in the baculovirus expression system. The antibody has been purified from cell culture supernatant using Protein A affinity chromatography.

Presentation

Vial containing 250 µg purified antibody in PBS pH 7.4. The concentration is given on the vial label. Spin the vial briefly before opening.

Storage and Stability

Store the antibody at 2°-8°C. For long-term storage the antibody should be aliquoted and stored at -20°C or colder. It is recommended to avoid freeze-thaw cycles.

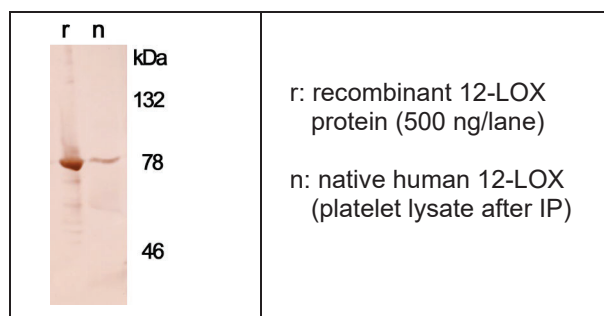
Applications

ELISA

The antibody can be used as capture antibody in ELISAs. An antibody concentration of 1-10 µg/ml is recommended.

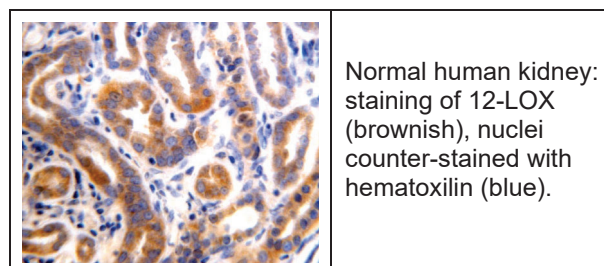
B. Western Blot

The antibody recognizes native and recombinant human P-12-LOX following SDS-PAGE under reducing conditions. A primary antibody concentration of 1-10 µg/mL is recommended.



C. Immunohistochemistry

The antibody can be used for immunohistochemistry on formalin-fixed, paraffin-embedded tissue sections. A primary antibody concentration of 1-10 µg/ml is recommended. Optimal staining results were obtained using heat-induced antigen retrieval (30 min, 60°C) using a Streptavidin Peroxidase-visualisation system.



References

1. Human platelet 12-lipoxygenase, new findings about its activity, membrane binding and low-resolution structure. Aleem AM et al. *J Mol Biol.* 2008 Feb 8;376(1):193-209
2. Platelet 12-lipoxygenase and stem cells in Barrett's esophagus. Jacekiewicz K, Izycka-Ćewieszewska E, Janiak M, Lysiak-Szydłowska W, Adrych K, Reinartz J, Jankun J, Skrzypczak-Jankun E. *Oncol Lett.* 2010 Sep;1(5):789-791.

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Hinweis/Note:

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