Human/Mouse Leukotriene A4 Hydrolase/ LTA4H Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF4008

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human and mouse Leukotriene A4 Hydrolase/LTA4H in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*S. frugiperda* insect ovarian cell line *Sf* 21-derived recombinant human Leukotriene A4 Hydrolase/LTA4H Pro2-Asp611 Accession # P09960
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

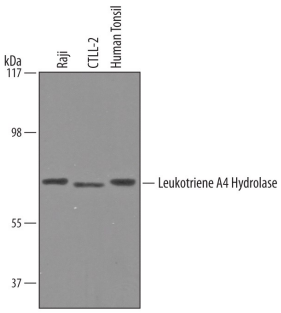
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below

DATA

Western Blot



Detection of Human and Mouse Leukotriene A4 Hydrolase/LTA4H by Western Blot. Western blot shows lysates of Raji human Burkitt's lymphoma cell line, CTLL-2 mouse cytotoxic T cell line, and human tonsil tissue. PVDF Membrane was probed with 1 µg/mL of Sheep Anti-Human/Mouse Leukotriene A4 Hydrolase/LTA4H Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4008) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Leukotriene A4 Hydrolase/LTA4H at approximately 70 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Leukotrienes are a family of lipid mediators important in a variety of allergic and inflammatory reactions. Synthesized by leukocytes, these molecules are divided into two classes, the spasmogenic cysteinyl leukotrienes and LTB4, a classical chemoattractant (1). Encoded by the LTA4H gene, Leukotriene A4 Hydrolase catalyzes the conversion of unstable epoxide LTA4 to LTB4, which is the final and committed step in LTB4 biosynthesis. As a bifunctional zinc metalloenzyme, LTA4H also acts as an arginyl aminopeptidase (2). LTA4H is a drug target for anti-inflammation, and for cancer prevention and therapy (1, 3).

The mature chain of human LTA4H consists of 610 amino acids (residues 2-611). It is highly specific for LTA4, which also covalently modifies and inhibits the enzyme. The aminopeptidase activity is enhanced by monovalent anions (1). R&D Systems rhLTA4H corresponds to the mature chain, and is characterized by its arginyl aminopeptidase activity.

References:

1. Haeggstrom, J.Z. (2006) J. Biol. Chem. **279**:50639.
2. Orning, L. *et al.* (1994) J. Biol. Chem. **269**:11269.
3. Chen, X. *et al.* (2004) Curr. Cancer Drug Targets **4**:267.

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