

DESCRIPTION

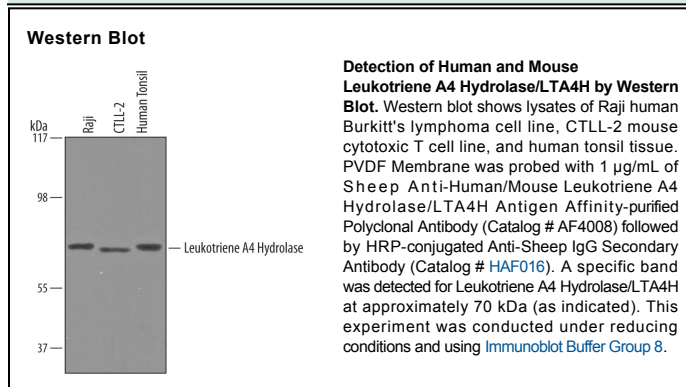
Species Reactivity	Human/Mouse
Specificity	Detects human and mouse Leukotriene A4 Hydrolase/LTA4H in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human Leukotriene 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



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. <ul style="list-style-type: none"> • 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.