

DESCRIPTION

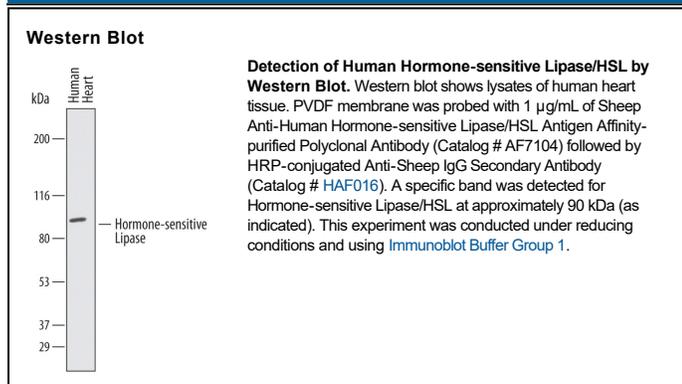
Species Reactivity	Human
Specificity	Detects human Hormone-sensitive Lipase/HSL in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Hormone-sensitive Lipase/HSL Met302-Leu425 Accession # Q05469
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or 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	Sterile PBS to a final concentration of 0.2 mg/mL.
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

LIPE (also known as hormone sensitive lipase/HSL) is a 88-90 kDa member of the GDXG lipolytic enzyme family of molecules. It is expressed in multiple cell types, including skeletal muscle, adrenal gland and adipocytes, and is regulated by a series of phosphorylations. Catecholamines activate the enzyme via PKA through the phosphorylation of Ser853, Ser855, and Ser951, while insulin depresses its activity via PDE3B. LIPE acts on triglycerides to release free fatty acids, and serves as a retinyl ester hydrolase. Human LIPE is 1076 amino acids (aa) in length, and contains one HSL domain (aa 302-616). This restricted 116 kDa isoform is found in testis (spermatids). There are additional isoform variants. One is 88-90 kDa in size in SDS-Page and possesses an alternative start site to the long form at Met302. This is considered the standard and most common LIPE isoform. A second is approximately 93 kDa in size and contains a 39 aa substitution for aa 1-294. A third isoform is 80 kDa in size and shows a 76 aa deletion in the center of the molecule, reducing its enzymatic activity. It is suggested that LIPE may act as both a monomer and homodimer. Over aa 302-425, human HSL shares 92-93% aa identity with both mouse and rat LIPE.