

DESCRIPTION

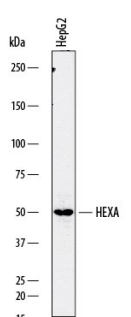
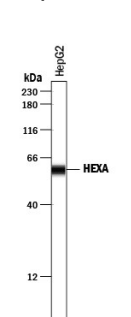

Species Reactivity	Human
Specificity	Detects human Hexosaminidase A/HEXA in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human Hexosaminidase A/HEXA Leu23-Thr529 Accession # P06865
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	2 µg/mL	See Below
Simple Western	20 µg/mL	See Below

DATA

<p>Western Blot</p>  <p>Detection of Human Hexosaminidase A/HEXA by Western Blot. Western blot shows lysate of HepG2 human hepatocellular carcinoma cell line. PVDF membrane was probed with 2 µg/mL of Sheep Anti-Human Hexosaminidase A/HEXA Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6237) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Hexosaminidase A/HEXA at approximately 50 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p>Simple Western</p>  <p>Detection of Human Hexosaminidase A/HEXA by Simple Western™. Simple Western lane view shows lysate of HepG2 human hepatocellular carcinoma cell line, loaded at 0.2 mg/mL. A specific band was detected for Hexosaminidase A/HEXA at approximately 59 kDa (as indicated) using 20 µg/mL of Sheep Anti-Human Hexosaminidase A/HEXA Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6237) followed by 1:50 dilution of HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.</p> 
--	--

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

HEXA (beta-hexosaminidase subunit alpha; also hexosaminidase subunit alpha) is a 50-56 kDa glycoprotein member of the glycosyl hydrolase #20 family of enzymes. It is found in the lysosomes of a variety of cell types including fibroblasts, lacrimal acinar cells, and neurons. β-Hexosaminidase is a multimeric enzyme that cleaves aminoacetylhexosamines from multiple glycosylated molecules. It exists in three noncovalent isozyme forms, among which is an A form that is trimeric and composed of one α- and two β-subunits, a B form that is tetrameric and contains two α- and two β-subunits, and a dimeric S form that contains two α-subunits. The α- and β-subunits are products of related but distinct genes. The β-hexosaminidase A form acts on a wide range of substrates, while the B form activity is biased towards sulfated hexoses. Human HEXA is synthesized as a 529 aa (amino acid) prepro-precursor. It contains a 22 aa signal sequence, a 66 aa prosegment, and a 441 aa mature region that contains a catalytic domain (aa 167-488). The prosegment may undergo additional processing through His90, and this segment (≈ 6 kDa) is known to remain linked to the mature region via a disulfide bond. Notably, circulating HEXA is comprised only of subunit proforms whose MW may run some 10 kDa higher in SDS-PAGE. Over aa 23-529, human HEXA shares 85% and 57% aa sequence identity with mouse HEXA and the human HEXA β-subunit proprecursor, respectively.