

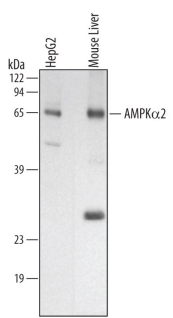
DESCRIPTION	
Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat AMPK α 2 in Western blots. In Western blots, less than 1% cross-reactivity with recombinant human AMPK α 1 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human AMPK α 2 Phe340-Arg552 Accession # P54646
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μ m 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 μ g/mL	See Below
Immunocytochemistry	5-15 μ g/mL	See Below
Immunohistochemistry	5-15 μ g/mL	Perfusion fixed frozen sections of mouse liver
Simple Western	10 μ g/mL	See Below

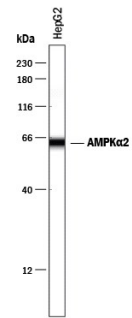
DATA

Western Blot




Detection of Human and Mouse AMPK α 2 by Western Blot.
Western blot shows lysates of HepG2 human hepatocellular carcinoma cell line and mouse liver tissue. PVDF membrane was probed with 1 μ g/mL of Goat Anti-Human/Mouse/Rat AMPK α 2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2850) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). A specific band was detected for AMPK α 2 at approximately 63 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

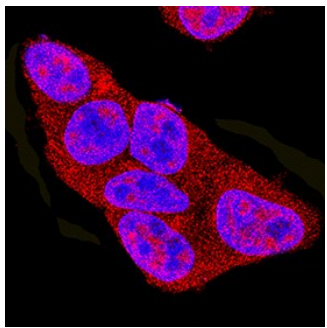
Simple Western



Detection of Human AMPK α 2 by Simple Western™. Simple Western lane view shows lysates of HepG2 human hepatocellular carcinoma cell line, loaded at 0.2 mg/mL. A specific band was detected for AMPK α 2 at approximately 63 kDa (as indicated) using 10 μ g/mL of Goat Anti-Human/Mouse/Rat AMPK α 2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2850) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



Immunocytochemistry



AMPK α 2 in HEK293 Human Cell Line.
AMPK α 2 was detected in immersion fixed HEK293 human embryonic kidney cell line using Goat Anti-Human/Mouse/Rat AMPK α 2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2850) at 5 μ g/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to nuclei and cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

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

AMP-activated protein kinase (AMPK) is a heterotrimeric complex consisting of a catalytic α subunit and regulatory β and γ subunits. Each subunit exists as alternate isoforms (α 1, α 2, β 1, β 2, γ 1, γ 2, γ 3), with all 12 combinations able to form complexes. The catalytic α subunit of AMPK is activated allosterically by AMP, and by phosphorylation via the AMPK kinase LKB1. AMPK's role in metabolic regulation has implicated this serine/threonine kinase as a therapeutic target in heart disease, obesity, and diabetes.