

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human MVK in direct ELISAs and Western blots.
Source	Polyclonal Rabbit IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human MVK Met1-Lys396 Accession # Q03426
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.

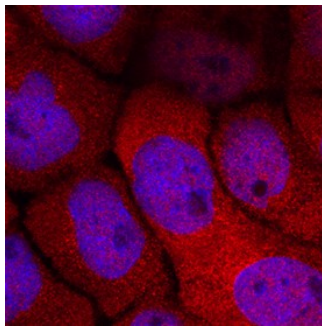
APPLICATIONS

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	0.1 µg/mL	See Below
Immunocytochemistry	5-15 µg/mL	See Below
Immunoprecipitation	4 µg/mL	See Below
Simple Western	1 µg/mL	See Below

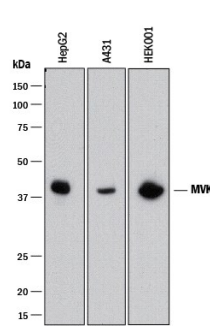
DATA

Immunocytochemistry



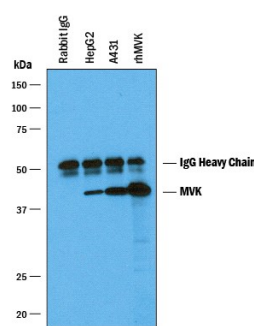
MVK in A431 Human Cell Line. MVK was detected in immersion fixed A431 human epithelial carcinoma cell line using Rabbit Anti-Human MVK Antigen Affinity-purified Polyclonal Antibody (Catalog # AF8516) at 2 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rabbit IgG Secondary Antibody (red; Catalog # NL004) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

Western Blot



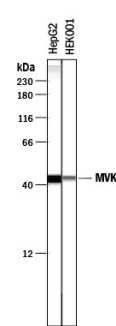
Detection of Human MVK by Western Blot. Western blot shows lysates of HepG2 human hepatocellular carcinoma cell line, A431 human epithelial carcinoma cell line, and HEK001 human epidermal keratinocyte cell line. PVDF membrane was probed with 0.1 µg/mL of Rabbit Anti-Human MVK Antigen Affinity-purified Polyclonal Antibody (Catalog # AF8516) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band was detected for MVK at approximately 42 kDa (as indicated). This experiment was conducted under reducing conditions and using *Immunoblot Buffer Group 1*.

Immunoprecipitation



Immunoprecipitation of Human MVK. MVK was immunoprecipitated from 400 µg of HepG2 human hepatocellular carcinoma cell line and A431 human epithelial carcinoma cell line lysates using 4 µg of Rabbit Anti-Human MVK Antigen Affinity-purified Polyclonal Antibody (Catalog # AF8516) coated on 4 wells of a 96 well plate (Corning Costar EIA/RIA). HepG2 lysates, A431 lysates, Rabbit IgG control buffer, or recombinant human MVK were added to the wells and incubated for 2 hours at room temperature. Immunoprecipitated MVK was detected by Western blot under reducing conditions using 0.1 µg/mL Rabbit Anti-Human MVK Antigen Affinity-purified Polyclonal Antibody (Catalog # AF8516) and *Immunoblot Buffer Group 1*. View our [recommended buffer recipes for Immunoprecipitation](#).

Simple Western



Detection of Human MVK by Simple Western™. Simple Western lane view shows lysates of HepG2 human hepatocellular carcinoma cell line and HEK001 human epidermal keratinocyte cell line, loaded at 0.2 mg/mL. A specific band was detected for MVK at approximately 43 kDa (as indicated) using 1 µg/mL of Rabbit Anti-Human MVK Antigen Affinity-purified Polyclonal Antibody (Catalog # AF8516). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



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

MVK (Mevalonate kinase) is a 42 kDa cytoplasmic protein that belongs to the GHMP kinase family, Mevalonate kinase subfamily of proteins. Mevalonate kinase catalyzes the ATP-dependent phosphorylation of mevalonic acid to form mevalonate 5-phosphate. Defects in mevalonate kinase can cause mevalonic aciduria (MEVA). It is an accumulation of mevalonic acid which causes a variety of symptoms such as psychomotor retardation, dysmorphic features, cataracts, hepatosplenomegaly, lymphadenopathy, anemia, hypotonia, myopathy and ataxia. Over aa 1-396, human MVK shares 81% aa identity with mouse MVK.